The Mining Journal
AND ATMOSPHERIC RAILWAY GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 584.—Vol. XVI.] LONDON: SATURDAY, OCTOBER 31, 1846. [Price 6d.

Stannaries of Cornwall—In the Vice-Warden's Court.

PURSUANT to a DECREE of the VICE-WARDEN'S COURT, made in certain consolidated causes of—

JENNINGS AND ANOTHER v. STEPHENS.
TYACK AND OTHERS v. SAME.
HARRIS AND ANOTHER v. SAME, and
ROWE v. SAME.

The CREDITORS, in respect of PENTIRE GLAZE MINE, in the parish of St. Minver, within the said Stannaries, are, on or before the 30th day of November next, to come in and PROVE their DEBTS before the Registrar of the said Court, at his office, in Truro; or, in default thereof, they will be peremptorily excluded the benefit of the said Decree.

Dated Registrar's Office, Truro, Oct. 28, 1846.

MINE MATERIALS.—FOR SALE, BY AUCTION, by Mr. NICHOLSON, at The MAGPIE MINE, near Bakewell and Monyash, Derbyshire, on Tuesday, the 3d of November next, at Ten for Eleven o'clock, the following

MINE MATERIALS.

An excellent 40-inch cylinder pumping engine, upon the Cornish principle. The engine has a 9 feet stroke in the cylinder, and 7 feet 3 inches in the shaft. It is complete with one cylindrical boiler about 8½ tons weight, and one Cornish tubular boiler about 8 tons weight, winch, main caps, and first piece of rod; and will be sold with or without the wood-work of the engine-house.

A 20-inch cylinder double acting steam-whim (nearly new), with cage, and one cylindrical boiler about 3 tons.

Capstan and shears, all iron work complete with 1¼, 135 fathoms of 10-inch single laid capstan rope; 81 fathoms of wood rods, from 1¼ to 10 inches square; 40 fathoms of iron rods, from 1¼ to 2 inches round; 10 pairs of hammered iron rod plates; nine pairs of common iron rod plates; three 10-inch plunger poles, each 9½ feet long, with stuffing boxes and glands, cases, door and H-pieces and windbores, to fit; three 9-inch plunger poles, each 9½ feet long, with stuffing boxes, and glands, and two cases to fit; 14 9-feet 8-inch pumps, with some shorter lengths and matching-pieces; one 10-feet 10-inch working barrel, door-piece, wind-bore, and 10 fathoms of 11-inch pumps, with clacks and buckets to fit; one 6-inch, one 6¼-inch, two 7-inch, and one 8-inch working barrels, and several other pumps of different sizes; a quantity of rod and flange bolts; about 350 yards of small wood launders; 35 fathoms of Manilla rope; one engine counter; one large pair, and some smaller pairs, of blocks; several tons of rail and other iron, both new and old; railway chairs, and a quantity of chain of different sizes; about 10 tons of old cast and 3 tons of scrap iron.

One pair each 32 and 40-inch smith's bellows, 2 anvils, 1 vice, and a quantity of smith's tools; 3 cast-iron cisterns, 5 jigging hutches and sieves, 4 centry boxes; carpenter's and miner's tools, 1 miner's compass, dialling chain, and parallel ruler; about 2 tons of junk, and some new rope; 5 cwts. of Russia tallow, new cast steel, several pulleys of different sizes, 1 wood and 3 iron waggons, about 15 tons of coal, several miners' chests, nearly 2 hides of leather, a brass bucket rod, a small crushing machine, weighing machine, shed roof over the dressing floors, 1 horse whim, a turning lathe, a crab winch, screw stocks, a quantity of timber (in lots), several thousands of bricks, and a large dining table, with various other articles too numerous to mention.

For particulars apply to Mr. S. Bennetts, Alport, Bakewell; or to the agent on the mine.—October 16, 1846.

MINING MACHINERY AND MATERIALS, on the OLD WORKINGS of WHEAL FRANCO MINE.—Mr. G. TRICKETT, Jun., has received instructions to SELL, BY PUBLIC AUCTION, on Tuesday, 10th of Nov. 1846, ON THE OLD WORKINGS OF WHEAL FRANCO MINE, situated at HORRA-BRIDGE, near Tavistock, Devonshire, all the

MACHINERY AND MATERIALS

connected with the same, consisting of One excellent WATER-WHEEL, 32-feet in diameter and 6-feet breast, cast-iron rings and sockets, with the pivots, saddles, and brasses.

One HORSE-WHIM, in good condition, with pulleys.
STAMPS' WHEEL and FRAME, 14-feet in diameter, and 2-feet breast.
STAMPS' AXLE, for six heads, with saddles and brasses to fit.
Stamps' frame, for 6 heads
Pendulum, complete
10-inch plunger-pole, with stock
1 11-inch windbore, 9 feet in length
8 Iron-bound timber pumps, about 12 fms. in length
1 20-inch working barrel, 9 ft. in length
1 Cast-iron bob gudgeon
1 12-inch iron pump, 9 ft. in length
1 10-inch wood windbore
4 10-inch wood pumps, about 6 fms. in lgth.
Sundry saddles and brasses
About 4 cwts. of brass
Several tons of scrap-iron
2 Cranks
1 Capstan sheave, 3-feet in diameter
Several whim kibbles
Sundry lots of wrought and cast-iron
Grease casks, &c., with other articles now lying on named old workings.

Sale to commence at Twelve o'clock precisely.

4, Squire's-terrace, Union-road, Plymouth, Oct. 28, 1846.

FOR SALE, BY PRIVATE CONTRACT, at the TRENOW CONSOLS MINES, near MARAZION, CORNWALL, the following

SPARE MATERIALS—viz.:

1	10-feet 14-inch working barrel	1	14-inch H and door-piece
1	10-feet 13-inch ditto	1	10-inch ditto ditto
1	9 feet 12-inch ditto	1	8-inch ditto ditto
1	10-feet 12-inch ditto	1	8-inch ditto ditto
1	9-feet 8-inch ditto	1	7-inch knee and door-piece
8	9-feet 14-inch pumps	1	11-feet 14-inch plunger pole
	4½-feet 14-inch ditto	1	10½-feet 13-inch ditto
22	9-feet 13-inch ditto	1	10½-feet 11-inch ditto
1	5-feet 13-inch ditto	1	10½-feet 10-inch ditto
9	9-feet 9-inch ditto	1	10-feet 8-inch ditto
1	6-feet 9-inch ditto		Stuffing-boxes and glands to match
2	9-feet 8-inch ditto		Two boilers, of 11 and 5 tons respectively
1	8-feet 15-inch windbore		Faggotted and common iron strapping-plates, of various sizes
2	9-feet 10-inch ditto		Rod and flange bolts
1	6-feet 10-inch ditto		Cast-iron rod-rolls, of various sizes.
1	9-feet 6-inch ditto		7-inch Norway wood rods
1	6-feet 6-inch ditto		Two balance lobs
1	4-feet 7-inch ditto		Two capstans and 2 shears
1	4-feet 5-inch ditto		1 9-inch and 1 12-inch capstan rope
1	5-feet 15-inch clack seat piece		Old wrought and cast-iron, and sundry
1	6-feet 13-inch ditto		other materials.
1	6-feet 10-inch ditto		
1	6-feet 8-inch ditto		

Application to be made to the agents on the mine; or to Mr. Henry Thomas, Mining Offices, 8, George-yard, Lombard-street, London.—Oct. 23, 1846.

SHARES IN TIN AND COPPER MINES FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, the following MINE SHARES, the property of the late Mr. George Bousstow, deceased—viz.:

TWENTY-FIVE (128ths) in WHEAL REETH MINE.
FOUR (128ths) in BALNOON CONSOLS MINE.
TWO (128ths) in WHEAL CATHERINE AND MONTAGUE MINE—and
TWO (40ths) in WHEAL BERRIOW MINE.

The tin mines of Wheal Reeth and Balnoon are situate in Uny Lelant, and lie between the extensively productive mines of Wheal Margaret, Wheal Mary, and St. Ives Consols; and the former, for some time past, has more than paid its costs.

The copper mine of Wheal Catherine is situate in Redruth, and lies to the west of, and adjoins, Treleigh Consols and Wheal Berriow Copper Mine, is in North Hill.

For further particulars, and to treat for the purchase of the same, apply to Mr. Roscorla, solicitor, No. 8, North Parade, Penzance.—Dated Oct. 19, 1846.

VICTORIA TIN MINING COMPANY.
(Late the Wheal Fortune Consols and other Setts.)
ON THE COST-BOOK SYSTEM.
Capital 10,240 shares, of £2 each.—Deposit £1 per share.

DIRECTORS.

JOHN HOLMES, Esq., Chairman.
CAPTAIN HAMILTON, J.P. | HENRY J. PRESTON, Esq.
SAMUEL HOLDSWORTH, Esq. | W. HOLMES, Esq.
WILLIAM GARROW, Esq.

Local Managers—Captain James Chynoweth; Mr. Thomas Julian.

BANKERS.

Commercial Bank of London, Lothbury; and Henrietta-street, Covent-Garden.
Sir Claude Scott, Bart., and Co., Cavendish-square.

Secretary—Lieut. W. H. Smith, R.N.

The mines of this company are situated in the parish of St. Stephen's, Branwell, in Cornwall, on the border of the parish of St. Denis, and are held at 1-15th dues, for a term of 21 years. They comprise some of the most extensive and promising setts in Cornwall, and are known to contain at least eight tin lodes, which have been partially worked, and found to be very productive. Some of the lodes are from 4 to 6 feet wide. Nos. 1 and 2 lodes, as may be seen by the main, are between 2 and 3 feet in width; and the other lodes are from 18 to 24 inches wide, containing excellent tinstuff.

The reports of the surveyors and mining agents are highly encouraging, and fully warrant the belief, that, by means of a moderate outlay, under judicious superintendence, the mines will forthwith realise a liberal profit for the shareholders.

The regulations of the company provide for the due registration and transfer of the shares, and that 21 days' notice shall be given of every call thereupon: no call to exceed 5s. per share, but it is believed no call beyond the deposit will have to be made.

A general meeting of the proprietors will be held half-yearly, at which a full report of the company's affairs will be submitted by the directors.

The liability of the shareholders is limited to the number and amount of the shares which may be held by them respectively.

The shares will be allotted by the directors to the most eligible applicants on the 10th November, 1846.

Applications for shares may be addressed (until the 9th November, 1846), to the directors, at the temporary offices of the company, 1, Copthall Chambers, London, where prospectuses may be obtained. By order, W. H. SMITH, Secretary.

FOR SALE—EXTENSIVE AND VALUABLE IRON-WORKS (in close vicinity of the harbour of Aberdeen).—There will be exposed FOR SALE, BY PUBLIC ROUP, within the Lemon Tree Tavern, ABERDEEN, on Wednesday, the 4th day of November next, at Two o'clock afternoon, those extensive and valuable premises, at FOUDEE, Aberdeen (bounded on the west by the harbour), known as

THE DEE IRON-WORKS,

and long EMPLOYED in the ENGINEERING and MILLWRIGHT BUSINESS, and in IRONFOUNDING, BOILER-MAKING, IRON SHIPBUILDING, BLACKSMITH WORK, BRASS FOUNDING, &c.

These works are very compact, and much more advantageously situated than many other works of the same description, for iron shipbuilding and engineering business—having a WATER FRONTAGE to the harbour, and in close connection with the other parts of the establishment—and the whole lying so contiguous, that all the branches of the business can be carried on under the same superintendence.

In the BUILDING-YARD several iron vessels may be proceeding at one and the same time, of from 200 to 2000 tons burthen; and the tools and machinery in this department are believed to be equal to any in the kingdom; there are other accommodations for carrying on this branch of business in its fullest perfection.

In the ENGINEERING DEPARTMENT, the tools and machinery are of the most improved description, and capable of constructing engines or machinery equal in magnitude to any known at the present day; and are sufficient to employ, constantly, from 100 to 150 men. In connection with this department, the building and fitting of locomotives may be carried on to the greatest extent.

The IRON FOUNDING DEPARTMENT is fitted up in the most complete manner, and capable of turning out both heavy and light castings, and of fully employing 60 men.

In the BOILER MAKING DEPARTMENT, which is separate from the iron shipbuilding premises, there is a complete set of tools and machinery, of the best description, capable of employing 150 men.

In the BLACKSMITH Shop there are 12 forges, all blown by fan-blast, with cranes attached to the principal ones, and each forge having a complete assortment of tools, for engineering, millwright, and shipbuilding purposes.

The MILLWRIGHT and PATTERN MAKERS' DEPARTMENT has a full assortment of all kinds of joiner and millwright's tools and fixtures, for the employment of 25 men, with a large stock of the most modern and useful patterns, which will be given over with the works.

There are also the necessary machinery and tools for carrying on the BRASS FOUNDING and FINISHING BUSINESS, and PLUMBER and COPPERSMITH WORK, to a large extent.

The whole establishment, if fully employed, is capable of turning out work to the amount of £60,000 or £70,000 a-year; and having been for several years, and still being, in full operation, the purchaser will have the advantage of commencing business immediately.

The greatest facilities of communication are afforded, by regular trading steam and other vessels, from Aberdeen to London, Hull, Newcastle, and Leith, in the south; and Inverness, Wick, Orkney, and Shetland, in the north.

The extensive improvements on the harbour, now going on, and the projected railway schemes in connection with Aberdeen, afford every prospect of full employment for a work of this description for a long period to come.

If the purchaser were desirous of removing the plant elsewhere, the buildings are so constructed as to be convertable into other manufacturing purposes, at little expense, as there are three fixed steam-engines on the premises.

For further particulars apply to John Hunter, Esq., W.S., 13, Hill-street, Edinburgh; W. Robinson, Esq., advocate, 58, Castle-street, Aberdeen; or to Mr. Vernon, at the works, who will show the premises, and on application, forward a plan of the buildings, and inventory of the machinery, tools, &c.—Aberdeen, September 8, 1846.

*** Copies of the Plan and Inventory may be had, on application, at the office of the *Mining Journal*, 26, Fleet-street, London.

VALUABLE AND EXTENSIVE FOUNDRY AND ENGINE WORK, at ALLOA, FOR SALE, for behoof of a sequestrated estate. To be SOLD, by PUBLIC AUCTION, within the Waterloo Hotel, Edinburgh, on TUESDAY, the 17th day of November, 1846, at Two o'clock afternoon, at the reduced upset price of £6000, and with immediate entry, the ALLOA FOUNDRY and STEAM-ENGINE MANUFACTORY, with HARBOUR, containing ample accommodation, and every facility for carrying on the business of iron founding, steam-engine making, and iron steam-boat building, on an extensive scale. The premises cover nearly two acres of ground; the buildings are substantial, being constructed of stone within a few years. They are peculiarly well-situated for supplies of iron and coal. The machinery, utensils, and patterns, are of best and most useful kind, and in excellent order.

A detailed description of the works (which are in operation) was inserted in this Journal, of 17th instant; and for further information, application may be made to Mr. Brydie, banker, Alloa; Messrs. Lockhart, Hunter, and Whitehead, W.S., 84, Great King-street, Edinburgh (who are in possession of the titles); or to Mr. Muir, 17, Quality-street, Leith, Trustee on the Estate.—Leith, Oct. 29, 1846.

DIVIDEND—THIRTY PER CENT.—TWO LESSEES of a COPPER MINE, which has paid from ore sold a dividend of the above amount on the total outlay, and is looking well at this time, have, in order to extend their operations, DIVIDED the MINE into SHARES, of a limited amount; the price of which, to the purchasers, will be cost out of pocket, with the addition of a sum to form a further working capital. About £1400 worth of ore has been already sold from the mine, the lease of which has nearly 20 years to run, and the dues of which are 1-15th.

Persons desirous of taking shares in this very profitable mine, are requested to send their applications to "A. B.," care of Mr. Gough, 8, Blewitt's-buildings, Fetter-lane, who will forward the same; and also to mention the amount they feel inclined to invest in shares.

METROPOLITAN IRON AND STEEL COMPANY, (Provisionally Registered, pursuant to Act of Parliament, 7 and 8 Vic., c. 110.)
Capital £200,000, in 10,000 shares of £20 each.—Deposit £2 per share.

A company has been formed for the MANUFACTURE OF IRON AND STEEL (from cast, scrap, and all descriptions of old refuse iron), which shall be of a superior quality to any hitherto produced in the mining districts.—The objects of the company are fully explained in the prospectus.

In allotting the shares a preference will be given to parties in the iron trade.

Applications for shares and prospectuses to be made to Mr. Charles Chilton, No. 39, Moorgate-street; or at the Steam Mills, 135, Old-street.

MERIONETHSHIRE SLATE & SLATE SLAB COMPANY, (Provisionally Registered, pursuant to Act of Parliament, 7 and 8 Vic., c. 110).
Capital £50,000, in 5000 shares, of £10 each.

A company has been formed for the purpose of supplying, at greatly reduced prices, a sufficient quantity of SLATE SLAB, of the very best description, to meet the daily increasing demand. The objects of the company are fully detailed in the prospectuses; applications for which, and for the remaining shares, may be made to the manager, at the temporary offices of the company, 7, Copthall-court; or to Mr. Thomas, mining agent, 18, Threadneedle-street, London; Mr. John Glaisby, broker, New-street, York; and Mr. John Cooper, broker, Albion-street, Leeds.

MERIONETHSHIRE SLATE & SLATE SLAB COMPANY.—Notice is hereby given, that NO APPLICATIONS for SHARES in this company will be RECEIVED after MONDAY, the 9th of Nov. next, after which the allotment will be immediately proceeded with.—7, Copthall-court, Oct. 30, 1846.

VALENCIA SLATE COMPANY.
Capital £100,000, in shares of £10 each.

The VALENCIA SLATE QUARRIES, situate in the Island of Valencia, on the south-west coast of Ireland, have been worked on a limited scale for a few years, during which time the superior quality of the slate, and its peculiar adaptation for sawing into slabs, have been fully established.

The demand for Valencia slabs has now, in fact, become regular and extensive.—Having great strength, perfectly true surfaces, and not being affected by acids or grease, nor absorbing moisture, they have been found applicable to a vast variety of uses, and more particularly for factory floors, warehouses, granaries, maltings, stores, prisons, hospitals, railway stations, and for the floors, ceilings, and roofs of public buildings. The station at Birmingham is laid with Valencia slab, and they are used at the Model Prison, Pentonville, at the new Houses of Parliament, and at numerous other public buildings in London.

There is also a large and increasing demand for Valencia slabs in the colonies, for corn-drying floors, and for sugar-houses. For the purpose of more effectually attaining the enlarged scale of production required to meet the present great and still increasing demand, and of carrying out certain arrangements, whereby the cost of production will be greatly reduced, and the rate of profit increased, it is proposed to extend the capital embarked in the undertaking, and to convert the present proprietorship into a joint-stock company, to be constituted under a proper deed of settlement. The capital of this company to consist of 10,000 shares, of £10 each; 2500 of these shares, constituting a paid-up capital of £25,000, to represent the capital already invested by the present proprietors in uncoverings, buildings, mills, machinery, and plant; the remaining 7500 shares to be issued at par to such parties as shall be approved of by the provisional committee.

Prospectuses, containing more full details, and shewing the immediate and large returns to be obtained, and also forms of applications for shares, may be had at the offices of Messrs. Palmer and Nettleship, solicitors, 4, Trafalgar-square; and of Messrs. Field, Son, and Wood, stockbrokers, Warnford-court, Throgmorton-street.

THE PATENT SAFETY FUSE, FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most EXPEDITIOUS MODE of effecting this very hazardous operation. From many testimonies to its casualness with which the manufactures have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, DICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

MINING OFFICES, No. 1, ST. MICHAEL'S-ALLEY, *CORNHILL, LONDON.*

Messrs. WATSON & CUELL have received instructions to PURCHASE SHARES in East Tamar Consols, South Tamar, Copiapo, East Rose, Alten, Stray Park, and Mary Ann Mines; and have FOR SALE, SHARES in all the best DIVIDEND MINES in Cornwall and Devon, paying from 18 to 20 per cent. per annum.

MINING PROPERTY.—CAPITALISTS who are disposed to INVEST in CORNISH and FOREIGN MINES, will find the present opportunity very favourable for so doing. From large sums having been lately diverted from such investments for railway speculations, standard mines are now selling at prices that will pay the purchaser 20 per cent. per annum for his outlay. There are also other mines that are on the eve of paying dividends, which can be recommended with confidence.

Applications to be made to Mr. JAMES HERRON, mining agent, No. 3, Adam's-court, Broad-street, London.

MR. R. TREDINNICK will be happy to afford parties every INFORMATION respecting the ABOVE MINES, on personal application at his OFFICE, and proffers his SERVICES to CAPITALISTS and ADVENTURERS in the PURCHASE and DISPOSAL of SHARES of every description.

Mr. TREDINNICK being in constant communication with experienced practical agents in the several mining districts, can, with confidence, recommend to shareholders, desirous of acquiring information from personal inspection of the mines, agents on whose reports every reliance may be placed.

MINING AGENCY OFFICE—THREE KINGS-COURT, LOMBARD-STREET.

MESSRS. R. CLARK & CO. beg to acquaint their friends and the public in general, that they have taken OFFICES as below, where they intend to carry on BUSINESS as STOCK, SHARE, and MINING AGENTS; relying with confidence upon the method adopted by them for conducting all business entrusted to their agency, Messrs. R. C. & Co. solicit a continuance of that support it will be, by strictest attention to all orders, their endeavour to deserve.

N.B.—Money advanced upon scrip and other securities.

3, Austinfriars, Broad-street, Oct. 17, 1846.

MR. RYE, MINING AND RAILWAY SHARE AGENT, 86, *OLD BROAD-STREET, LONDON.*

MESSRS. LINTHORNE, JONES, AND CO., STOCK, MINING, AND SHARE AGENTS,

*** Every information will be afforded as to the markets and prices of the above, by application (post-paid) at their offices,

48, THREADNEEDLE-STREET, LONDON.

MESSRS. J. PAINTER AND CO., SHAREBROKERS, MINING AND GENERAL AGENTS,

25, CASTLE-STREET, LIVERPOOL,

AFFORD EVERY INFORMATION as to the STATE of the MARKETS, PRICES, &c., upon application.

CHARLES T. CRAPP, SHARE AGENT, *TAVISTOCK.*

JOHN HARVEY, SHAREBROKER AND ASSAYER, *LISKEARD, CORNWALL.*

JAMES LANE, MINING SHAREBROKER, 75, *OLD BROAD-STREET, LONDON.*

WILLIAM TRENERY, DEALER IN RAILWAY AND MINING SHARES.—ESTABLISHED TEN YEARS.

OFFICES, No. 50, THREADNEEDLE-STREET, LONDON.

WILLIAM H. SMITH, MINING SHARE AGENT, 10, *WARNFORD-COURT, THROGMORTON-STREET.*

*** SHARES in many valuable MINES FOR SALE, and every information will be afforded, on application.

WILSON & FRASER, 2, WELLINGTON-BUILDINGS, LIVERPOOL, and 13, EXCHANGE-PLACE, GLASGOW, have always ON SALE PIG-IRON, BAR-IRON, RAILWAY CHAIRS, and RAILWAY BARS.

WILLIAM FOX AND SON, No. 53, CASTLE-STREET, LIVERPOOL, have always on SALE PIG-IRON, RAILWAY BARS, CHAIRS, and IRON of every description.—TIN PLATES, WIRE, &c.

TO IRONFOUNDERS—PIG-IRON.—F. A. TIDDEMAN, PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON, has at all times a STOCK of PIG-IRON, of the BEST BRANDS, for DISPOSAL, at the lowest possible rates.—Delivery immediate, or at the convenience of his customers.

TO IRONMASTERS.—BLOWING-ENGINE FOR SALE.—A CONDENSING-ENGINE, without boilers, capable of blowing four blast-furnaces; steam cylinder, 48½ inches diameter; blowing cylinder, 84½ inches diameter—both in good working order; length of stroke, 9 ft.—metallic rings in steam-piston; has been some time at work, and can be removed at small expense, having been taken apart, and now lies close to a railway.—Apply to Mr. John Watt, C.E., 32, St. Enoch-square, Glasgow.

TO BE LET, ON LEASE, the IRONSTONE in TEESDALE, in the county of DURHAM, belonging to his Grace the Duke of Cleveland, over an extent of 30,500 acres.—Terms and conditions may be known on application to J. Scarth, Esq., Raby Castle, Darlington.

TO BE SOLD, OR LET, a very complete MILL and FORGE capable of turning out 80 tons of bar-iron weekly. It is situated close by the harbour, at Workington, where coals are plentiful, and markets easily accessible by sea and railway. If sold, a large proportion of the purchase-money may remain on mortgage, if desirable to the purchaser.—Apply to Mr. Ralph Clay, Workington; or Mr. Wm. Clay, No. 4, Water-street, Liverpool.

MINES TO LET.—TO BE LET, BY ROYALTY, the COAL and IRONSTONE MINES, under upwards of 100 acres of land, at SWINDON, near WINSLEY. The Staffordshire and Worcestershire Canal passes through the estate.—For particulars, apply to Mr. William Fellows, solicitor, Dudley.

MINING in CARDIGANSHIRE.—TO CAPITALISTS AND MINE ADVENTURERS.—TO BE LET, on most advantageous terms, in a rich MINING DISTRICT, near ABERYSTWITH, about FOUR THOUSAND ACRES of LAND, containing numerous lodes, rich in METALLIC ORES, and close adjoining the far-famed and highly productive Lisburne Silver-Lead Mines. Many of these lodes have been recently discovered, and are of a highly promising character. There is first-rate and ample water-power on the estate to work mines to any reasonable depth; and the proprietor would treat, on liberal terms, with any gentlemen wishing to embark in a highly promising mining speculation, or any creditable mining company.

Every further particular may be obtained on application (by letter) to Mr. J. M. Davies, Antaron Cottage, near Aberystwith; or to the office of the *Mining Journal*, No. 26, Fleet-street, London.

WHEAL MARTHA CONSOLS.—Some SHARES in this MINE TO BE DISPOSED OF, at £7 5s. per share. £5 per share have been paid, being the whole amount that can be called.—Apply to Mr. Ogilvie, No. 10, Austinfriars, London.

ALTEN MINING ASSOCIATION.—Notice is hereby given, that a DIVIDEND of FIVE SHILLINGS per share, out of profits made in the half-year ending 31st March last, will be PAYABLE at this office on Monday, the 26th inst., and every other day in that week; and on Wednesdays in every week following, between the hours of Eleven and Three o'clock.—The scrip certificates on which the dividend is claimed, must be left at the office two clear days before the payment can be made.

By order of the board, EDWARD J. COLE, Secretary.

Mining Offices, Winchester-house, Old Broad-street, Oct. 9, 1846.

ASTURIAN MINING COMPANY.—Notice is hereby given, that all SHARES upon which the last CALL has NOT been PAID, are liable to FORFEITURE, and a list of such shares is now preparing, previous to their being cancelled.

By order of the board of directors,

9, Austinfriars, Oct. 24, 1846. K. MACKENZIE, Secretary.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

Winchester-house, Broad-street, London, October 26, 1846.—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the proprietors of shares in this association will be HELD at the London Tavern, Bishopsgate-street, on Friday, the 13th of November next.—The chair will be taken at Two o'clock precisely.

GEORGE THOMAS, Acting Director.

N.B.—The auditors' statement may be seen at the office 3 days before the above meeting.

UNITED HILLS MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders of this company will be HELD on Thursday, the 12th day of November next, at the office of the company, 5, Adam's-court, Broad-street, at One o'clock precisely, to take into consideration the propriety of raising further capital, for the better and more effectual working of the mines of the said company, by increasing the number of shares—or of taking such other steps as may appear advisable for that object. By order of the directors,

October 26, 1846. JAMES SMITH, Secretary.

Original Correspondence.

GREENHOW'S GEOMETRICAL RAILWAY SYSTEM.

SIR,—I must beg you to allow me space for a short reply to some Editorial remarks which appeared in the columns of a contemporary (the *Railway Chronicle*), purporting to be a critique on my system of railway construction; the Editor, whoever he may be, is certainly not gifted with a very clear or logical intellect, or he would have been able to seize upon some point in my pamphlet, on which to found an objection—but no! Although, from the heading of the article, you would expect that "An exposition of the dangers and deficiencies of the present mode of railway construction, with suggestions for its improvement," was to be the purport of his criticism, yet, throughout his whole paper, does he confine himself to making extracts from another pamphlet, which appeared in support of my system, signed "Geometricus;" and in writing which, I can safely assert, I had nothing whatever to do: indeed, I have previously made this statement through the medium of the *Mining Journal*. At any rate, had not some sinister motive influenced the writer of the lucid article referred to, he would have favoured my pamphlet with some notice, however slight, beyond merely appearing at the head of his remarks, unless he found it necessary, on account of the shallow levity of his remarks, to add a little ballast, or, by putting a false face on the matter, he hoped to make a counterfeit pass for sterling coin. Throughout the whole article, there is not one word that bears in the slightest degree on the principles laid down by me, or the least attempt to controvert the theory I have propounded; had there been such, however abortive they might have turned out, at any rate it would have proved that the writer wished to elucidate the truth, and not shown his article to be, as I fear it is, an ebullition of splenetic and peevish ill-nature, which too clearly shows what the writer would do, had he the power or ability to overthrow my arguments. I am almost induced, for the amusement of your readers, to transcribe some of "the assumptions and fallacies," into which the "ingenious writer" has fallen—such as, "that the existing rail is actually rounded to the full extent required by the practical displacement of the road, and the tire of the wheel is rounded at the flange, to fit the rounded edge of the rail." Now, this is a little bit of logic, quite in keeping with the whole concern, "because the flange is rounded to fit the *edge* of the *rail*, it also must fit the top of the rail rounded at a much greater radius." This is about equal to the arguments of another gentleman, who went to prove that oval was round; and scarcely surpassed by a subsequent one of this worthy of the *Railway Chronicle*—"because round is equally strong in every direction, it is not the strongest in the particular direction required." I quote exactly his own words, so do not laugh, and think I am hoaxing you. If the rail is sufficiently strong for its intended object—the support of the train—it will be all the better for having strength enough to resist those violent lateral impulses which create the greatest danger in railway travelling. I would be obliged to this gentleman, if he will state the reason why "the first run of 50 miles at high velocity would prove utter destruction to all." It is all very well to make up for impotence in argument by assertions such as these, but something more is expected of the person I suppose to be the writer of that article; and I can assure him, I would not have treated him with the levity I have, had he shown a little more of the "*fortiter in re, et suaviter in modo.*"

3, *Lothbury, Oct.* 27. C. H. GREENHOW.

GREENHOW'S GEOMETRICAL RAILWAY SYSTEM.

SIR,—It is far from my purpose to reply to nameless reviewers, but I trust you will permit me to correct a *gross blunder* committed by a writer in the *Railway Chronicle*, in his notice of my pamphlet on the geometrical railway. From your *personal knowledge*, you are enabled to vouch for the fact, that Mr. C. H. Greenhow, the patentee of that system, and "Geometricus," are no more one and the same person, than Jupiter and Saturn are one and the same planet. Should the judgment of the writer referred to err as much on other occasions as on this, it can have but little weight with his readers. For the rest, I have but to thank him for the copious extracts he has made from my pamphlet (why was he not equally liberal towards that of Mr. C. H. Greenhow?), feeling assured that they are more likely to impress his readers with the force of truth, than his flippant and illogical criticism.—GEOMETRICUS: *York, Oct.* 26.

GREENHOW'S GEOMETRICAL RAILWAY.

SIR,—I accidentally met with the *Railway Chronicle* of the 24th inst., and was much amused with an article in it, set forth by the editor as a criticism on the pamphlet published by Mr. C. H. Greenhow, exposing his system of railway construction; also, of another pamphlet which appeared, having the assumed name of "Geometricus" as its author, and of which Mr. Greenhow has already asserted that he was not the author. From the knowledge I have of the "presiding genius" of the paper referred to, I bought one, expecting a great treat in the arguments the ingenious and versatile gentleman I allude to would bring forward in support of his evident disapproval of the intended arrangements of Mr. Greenhow; but, Mr. Editor, what was my disappointment and surprise to find the article in question an impotent attempt to depreciate the labours of another, without being able to bring forward one single isolated argument in support of the allegations it set forth; the mountain was indeed in labour, "*et nascitur ridiculus mus.*" How the editor of a paper, which has any pretensions to intelligence, could put such a truly vapid and puerile article into his columns, those who understand the exact limit to the forbearance of readers, may, perhaps, be able to determine; certainly, had I been in his place, I should have hesitated before trying the experiment. I trust that Mr. Greenhow will treat it with the contempt it deserves; but there is no valid reason why myself, or any one of the public, who is anxious to have the present miserable mode of railway *manufacture* superseded by one more likely to conduce to safety and comfort—I say, there is no objection to our putting down such palpable attempts of petulant interest, or, what is as bad, presumptive ignorance, to bolster up a system which carries in itself the elements of its own destruction, of which startling and convincing proofs occur every day—the Eastern Counties line giving continual practical illustrations of its peculiar fitness for locomotion; and yet in the face of the long lists of killed and wounded, we are to be told, by such people as the writer of the article referred to, that the railway system cannot be improved, and every one attempting to introduce an improvement is to be condemned without appeal by this would-be dictator; but let him confine his arbitrary fiats to the purlieus of the Adelphi, where they will, perhaps, be received with more attention; for I quietly beg leave to tell him, "there are many things which are not dreamed of in his philosophy." So shallow and trifling is the whole article, that I would not have deemed it worthy of notice, had I not felt it a duty owing to myself and the public, to step forward to assist one who has so many unfair competitors to contend with, and, at the same time, felt assured that he was fighting the battle of the whole community against a most selfish monopoly. Q. E. D.

Southampton, Oct. 27.

P.S.—I shall hold myself prepared again to take up my pen, should circumstances require, and, when the proper time arrives, appear in my true character; in the meantime, let my motto be, "*nunquam dormio.*"

GEOMETRICAL AND BAROMETRICAL RAILWAY SYSTEMS.

SIR,—After the incoherent invectives poured out against us, in your Number of the 10th, by Mr. Greenhow and his anonymous supporters, we must take another—a more serious language. We are in this question without any interest whatever. When we took the *trouble* of examining Mr. Greenhow's pamphlet, it was at the request of a friend of his. The discussion thereon began with his amicable consent; and such would never have been its results, had Mr. Greenhow always maintained his proper position—the character we ascribed to him in our first letter.

As an inventor proposing plans for works of *public* interest, Mr. Greenhow owes full and clear answer to every objection. As a *gentleman*, he owes a *polite* answer to a *polite* objection. As a *mathematician*, he cannot plead ignorance, and owes an answer direct, and in the very mathematical sense of the objection: our first letter is a very positive proof that we did address Mr. Greenhow, the *inventor* of the geometrical railway, as a *gentleman*, as a *mathematician*. Epithets were the answers to our observations: the question eluded by the subterfuge of the *flange* and of the *motion*; and when, in our second letter, we followed Mr. Greenhow in his new position, he found it advantageous not to answer—and a first anonymous writer, declaring our objections *serious*, tried to oppose them by a comparison with circular and square steam-engines, that we proved *false* and *erroneous*.

When we see, after that, the objections always eluded—experiments made with instruments of *unexplainable* imperfection, on a scale that we declared to Mr. Greenhow, from our practical acquaintance with machines, cannot for a hundred reasons present accurate and serious results—when we see the shower of words, and phrases of anonymous writers, without the slightest reference to the question—when Mr. Greenhow *patronises, diffuses*, such a pamphlet as that of "*Geometricus*," which *he acknowledged to us proves nothing*—our natural conclusion from these facts is, that Mr. Greenhow *does not want to prove anything*; and that, if he did not only want to make a *puff*, he would answer our so often formulated objections. It is to show very little care of his reputation as a *mathematician* to allow so repeatedly, without ever coming to the point, that several of his most important propositions, and especially that developed at the page 13 of his pamphlet, and illustrated by *fig.* 4, should be declared such a mistake as would make blush a student of four months in geometry.

We shall not refer to the anonymous supporters of Mr Greenhow—we shall only remark, that scientific observations can, without objection, be printed without names; but that when a discussion is engaged, and *personalities* are published by prudent anonymous writers, the *gentleman*, who is favoured with their shouts, ought either to disclaim those *personalities*, or to sign them himself. Let Mr. Greenhow have a great many well-disposed and cautious friends, we shall not use *or hire* any; we stand befor a British public, who can distinguish serious approvers from obliging friends, and always favours those who try to bring less confusion, more positivism, in railway matters. We can be easily overmatched in *impudence*; but when any serious objection is brought forth, we are always ready either to oppose it, or to adhere to it. We thus answer to your correspondent, Mr. R. Mushet. The argument of Mr. Mushet is, that the line described by any point taken on the tire of the wheel being a *cycloid*—and the properties of *cycloids* being, that the generating point comes only once in every revolution in contact with the plane rolled over—no *friction* exists in the tire. What we pretend, and are going to prove, is, that no point on the concave tire describes a *cycloid*, but those placed on this line, corresponding with the top of the rail, which line we said to be the only *non-rubbing* part. That any point, placed further from the centre of the wheel, describes a line longer than the cycloid, and still with the same basis. Mr. Mushet will recollect that a cycloid is a line described by a certain point taken on the circumference of a circle when this circle is moving around its centre, over a line tangent to its circumference. The part of this tangent, contained between two meetings of the point with it, or the base of the cycloid, is exactly equal to the circumference of the circle; and, therefore, there is only *superposition* between the two surfaces coming in contact. If the base of the *cycloid* was smaller than the circumference, there would be evidently *friction*. Let us now take at first one point, at the part of the tire which corresponds exactly to the top of the rail, and call that point *a*. Let us take another, a little lower on the round part of the rail, and call it *b*; another lower still, and call it *c*; and a last one, *d*, quite at the end of the tire: those points touching all the rail, as they are placed all in the same perpendicular plan—we move the wheel around its axle along the rail; and when the wheel comes again to its former position, all the points are again touching, and in the same perpendicular plan; and we find that the distances between the first and second places of all these points on the rails are perfectly equal. Of course, if all the lines described by the points, *a*, *b*, *c*, *d*, are cycloids, their bases being equal, they must be perfectly equal and similar; and every one understanding that the line described by points, placed at different distances from the centre on a wheel, are necessarily different, the four lines described by the four points, *a*, *b*, *c*, *d*, being different, no more than one of them can be a cycloid.

Returning thus to the definition of a cycloid, we find that the rail is a tangent to the wheel only at its top, because it is the only part where the surface rolled over is equal to the surface rolling—that any point out of this position cannot describe a cycloid—that if it is further from the centre, as *b*, *c*, *d*, the line described will be longer than the cycloid; and as the circles, traced at these points around the centre, will have to apply themselves on the rail to lines equal in length to the circle traced at *a*, and, of course, smaller than them, *superposition* will exist no more, and all the surfaces, except this, at the top of the rail, will be *rubbing* in proportion of their greater distance from the centre. The solution of the problem by *cycloids* is one quite out of the way: the only property in cycloids having any connection with the question, is that of having their base equal to the circumference of the rolling circle; but it is always advantageous to fight men with their own weapons—and what we saw of the round rail is again confirmed by this fact, that no point describes a *cycloid*, unless it is placed on that very line we have shown to be the only one exempt of *friction*.

As regards to the second part of the *dilemma* in which we are placed by Mr. Mushet, the fact admitted in it is the very fact we are contending for—*increase of friction by round rail*. If the supporters of the *geometrical* railway find this increase *advantageous*, they are, as regards that, in their *ordinary* opposition to the principles of railways and engineering.

We have seen used and made pulleys, and shall observe to Mr. Mushet, that the rope acting on a pulley, in consequence of its *pliability*, is in close contact with every part of the circular rib; a rope presents to every line, on the pulley, a line of same length, and the round rail being not *pliable*, presents not the same characteristics. Mr. Mushet can consult the pamphlet of Mr. Greenhow about the second problem—it is that attempted to illustrate by the *fig.* 4—we find it impossible to express, without referring to the original, such a geometrical *absurdity*. The plan of rail proposed by Mr. Mushet as an improvement to the round rail, seems to us very well contrived, to present a secure and permanent shelter to dust, gravel, stones, &c.; they would leave little room to receive the tire of the wheel, which, being besides disposed *as a saddle*, is condemned by a supporter of the round rail, on the very page where it is proposed. N. A. BURNIER.

Dufour's-place, Oct. 15.

P.S.—We quite agree with Mr. Flaxman, as regards the correctness of the principle referred to by him in his letter of the 17th; this is a well and long known *law of moving bodies*. It was in consequence of this very part of the pamphlet that we said in our first letter:—"In short we have found in Mr. Greenhow's pamphlet the *exposé* of some clear and right principles, showing a perfect knowledge of the laws of *moving bodies*: but the consequences drawn from these principles are far from being carried out by the means proposed." (Letter of the 25th July)—This principle has nothing to do with the *round rail* and *inclined spoke*, being referred to by Mr. Greenhow as an explanation of the *oscillation* in the carriage, which we declared to be entirely a matter of experience.

[We must now close the discussion between Mr. Burnier and his opponents; when Mr. B. has the new model of his barometrical railway perfected, which we understand he is preparing on a greatly enlarged scale, we shall give a faithful description of it, and also our views as to the probable success of his system; and shall then, of course, hold our columns open to any remarks thereon, from himself or other correspondents.]

THE UNIVERSAL ATMOSPHERIC RAILWAY SYSTEM.

SIR,—Having matured my plan for the universal application of the atmospheric principle, the time has now arrived for making it known; but before I proceed, it may not be amiss to caution my readers against falling into the common error of pronouncing judgment without investigation—or, of condemning what is submitted, on account of its not possessing the attribute of perfection. Hoping that these brief observations may suffice to prevent any hasty remarks, I shall proceed by first giving a general outline of the plan, accompanied by a few appropriate observations, and shall afterwards enter minutely into the practical detail. In the first place, I propose, by certain arrangements, hereafter to be explained, to derive from natural sources the original motive power: this power to be *stored* with *compressed* air in magazines, or *transmitted* by *rarefied* air through pipes or tunnels. In the second place, I propose, by the use of stationary, semi-stationary, and locomotive-atmospheric engines, piston carriages, &c., to employ the power for every purpose for which power or force is required. In the third place, I propose *always* to use the air expansively, by cutting it off at such portions of the stroke of the engine, or length of section of tube of railway, as will admit of the pressure on both sides of the piston, or pistons, equilibriating when they arrive at the end of the stroke of the engine, or the length of section of tube (though I may speak of sections, the tubes will be continuous with separating valves). The atmospheric principle having been proved, by actual experience, to be applicable to the most difficult of all purposes to which it can be applied—namely, the purposes of locomotion—it is not necessary for me here to adduce any arguments to prove the possibility of applying it to other purposes: it is conceived that no scientific mind will, for a moment, doubt it—we will, therefore, pass on to the consideration of the sources from whence the original power is to be derived. It is quite certain that, had we to depend entirely (or even principally) on the steam-engine, as our source of original power, the *universal* application of the principle would be an impossibility,—for it appears that, in France, they are at a loss to know where the coals are to come from, for working even their railways; so they can have none to spare for agricultural and various other purposes, to which the atmospheric principle will shortly be applied; and if England, and some other countries, are in this respect rather better circumstanced, it would be unwise to draw too largely on our resources, of such a valuable commodity,

for purposes for which, as will be shown, they are not required; and if we have an abundance, there would not be much sin in better supplying with this commodity those of our poor unfortunate brethren, who have spent a life of usefulness; and, now that their days are "dwindled to the shortest span," are doomed to drag out the remainder of their miserable existence in huts, in hovels, in bastiles, or bedlams, and are perishing for the want of a better supply of this and other necessaries, and are mocked and insulted by being told that it is the will of God. Let us hope hereafter to see the benevolent, scientific, and philosophic, combine for better things; but to the question. Well, then, we have seen that the steam-engine is not to be depended on, if we wish to see the principle universally applied. What, then, shall we have recourse to? To wind and water—yes, to wind and water—either or both; for if it is possible (and we know it is) to derive power from these, where is the limit? Nowhere, must be the invariable reply: it is without limit. Have we not frequently our *beautiful breeze*, and occasionally our *strong gale*—any one of which, with proper arrangements, would cultivate our whole country; and have we not *regularly* our *rising and falling tides*, visiting us *twice* a day, besides our constant waterfalls; and do we not know, that power can be obtained from the rising or falling of water; and lastly, do we not *now* know that power *derived from any source* is both *storable* and *transmissable*—all these things we *do* know; and knowing it must act accordingly, not by petty divisions, but as a whole. From an enclosure of only *one square mile*, where we have our highest tides, we might derive annually millions of horses power, at a most trifling expense; and these sources of power are common to all nations, *and will endure throughout all time.* From them we may draw constantly and unsparingly, without the least fear of exhausting their stores.

From what has been said, it will be quite clear that there need be no lack of original power; but it is impossible, in the brief space of one letter, to go into all the *minutiæ* of detail—we must leave that for a future occasion, and shall occupy the remainder of this letter with a few observations relative to the *means* at a nation's disposal for carrying out such mighty projects. If we look around us, and see what is constantly going on, how our energies are wasted, or not brought into activity, we shall not be much at a loss to know where these are to be found. Why are hundreds of thousands of our fellowmen, who long to be useful, shut up in bastiles, in barracks, in prisons, and penal settlements? And why are hundreds of thousands more spending worse than uselessly their time in law courts, police courts, county courts, criminal courts, in courts of vice and dens of infamy, in gin shops, in beer shops, in bye-ways, and holes and corners of our streets, and in a thousand other useless vocations—the folly and madness of which would disgust a demon? Why, because short-sighted selfishness has blinded our eyes to our true interest, and shut out from our understanding the beautiful and the simple principles of social and political science; and if the comparatively few of us who remain to be useful can bear this enormous burthen on our shoulders, what could we not accomplish, if *these* were to come also with us into the vineyard? Let us leave off the barbarous system of war and bloodshed, and "live in peace with all men"—let us train up the rising generation in the paths of peace and virtue, in the way in which they should go—let there be no more "young St. Giles's"—and let our energies be concentrated in one common object—the good of all—and the mightiest project ever conceived will appear as nothing to our strength.

If we want a practical illustration of the benefits arising from comprehensive measures being conducted under one general arrangement, we have only to refer to our letter conveyance system, the most perfect and economical of all our arrangements; and might we not reasonably expect that, if Government can carry our letters so well and so cheap, it could do the same thing with ourselves—certainly we might; and I would defy them to make a worse job of it than is now made—that would be impossible. Had it been taken in hand by Government, would they not have first laid down a *general* railway system, with right-lined trunk lines, radiating and terminating in one common centre, from which trunk lines and branch lines would have intersected the whole country, without dodging first to the right and then to the left, in order to pick up half a dozen extra passengers, and endanger the lives of all—to be sure they would. Had a general national railway system been adopted at the first, and this is what it must at last come to, we should have had with the same outlay at least two miles for every one, and without scampering the work by laying the permanent rails on a few bits of "stewed sticks." The enormous sums that have been paid for "railway surveying," "levelling," "getting up plans and reports," "obtaining (trying for) Acts of Parliament," and last, though not least, for "legal and professional *stuff*," would have paid for some hundred miles of railway, if properly managed; and what makes the matter worse is, that a great portion of this foolish expenditure has been for lines that are not, nor ever will be; however, these things are done, and cannot now be helped—only do not let us still continue to "stumble on in superior ignorance, expending much, and effecting nothing;" but let us henceforth rightly apply our means and resources, and we shall soon make up for the past. In my next, I will enter more fully into some of the practical details of the plan.—J. Weston: *Oct.* 16.

P.S.—If Mr. Burnier will take the trouble to calculate the power necessary to compress two atmospheres into one, I think he will find that, for the first half stroke, it will average 6 lbs.—it commencing at 0 lb., and varying up to 15 lbs.; the next half, of course, will be uniformly 15 lbs.; if he takes half of these two quantities, he will have 10·5 lbs. as the *average* power of the *stroke*; and if he was compressing air at *half* an atmosphere to an atmosphere (or, what is the same thing, pumping air from a magazine at *half* vacuum), he would find that it takes *exactly half the power*, which is 5·25 lbs.; also, the power to compress three atmospheres—*i. e.*, two beside the incumbent atom into one—will be *exactly* three times as much as that necessary to compress *one-third* of an atmosphere to an atmosphere, or pump from a magazine at two-thirds vacuum. I am induced to think, from the figures he has given, that he calculates the same resistance at the beginning as at the end of the stroke—surely, he must know better than this.

NASMYTH'S PATENT FOR OBTAINING MOTIVE POWER.

Sir,—Apparently, in consequence of an article in your Journal of the 17th, describing a recent patent "for obtaining motive power," taken out by one James Nasmyth, I have received several communications on the subject, from parties under the impression that the J. Nasmyth in question is your most respectful servant. I was not aware that there existed *two* J. Nasmyths, subject to attacks of the patent-taking disorder; but now that I know that this is the case, without the slightest desire to make any invidious distinction between my patent-taking namesake and self, I shall feel much obliged when you honour me with any allusion in your Journal, that you will do me the favour to print my name and address, as below, so that parties may be able to distinguish between us.—James Nasmyth, Engineer.

Patricroft, near Manchester, Oct. 21.

[We publish the letter of our correspondent, who, we may observe, is the inventor of the pile-driving machine and steam-hammer, as the best course of meeting his wishes. We should, perhaps, at the time of describing the invention alluded to, have stated the address of the patentee (Arundel-street, Strand), which would have prevented the mistake occurring.]

ACCIDENTS IN MINES AND COLLIERIES.

Sir,—In common with your other readers, I desire to see such miserable accidents in our collieries done away with; and if we are unable, through unforeseen circumstances, to do so completely at present, I beg to offer the following method of preventing a small explosion spreading, should there be a large quantity of foul air in the passages, immediately communicating with that where the gas has taken fire, to the consideration of your readers. The plan is neither more nor less than Davy's safety lamp on a large scale; and to carry out this, I would say, let wrought-iron gratings of the following description, be fixed at the head of each working, where it communicates with the goaf, or in any place where foul air comes off, and the current is not sufficient immediately to carry it off. The grating to be made of bars of iron, of sufficient length to reach from the floor to the roof, 2 in. broad, and ¼ to ½ in. thick, and to be placed with the flat sides facing each other, at a distance of not more than ½ in.—the less the better. A door of the same grating to be fixed in the middle of each, so as to allow free passage through it for men, horses, &c.; but of itself to swing to, and remain fixed by a catch, until again opened by some of the miners. The way that these gratings would act, would be, that if an explosion took place on one side, the fiery gas must pass between these bars for 2 in. of space, all the time being cooled down by the great conducting power of iron—and by the time that this space was traversed, the gas would be cooled below the inflaming point of the gas on the other side; and if these gratings were disposed so as to cut into sections the main workings of the pit, an explosion on a large scale would be next to impossible. These gratings would not be liable to be blown down by explosions, as they would freely allow of passage through them, which would be necessary, on account of the draught.—L.: *Battersea, Oct.* 23.

THE "GUN COTTON" APPLIED TO MINING PURPOSES.

Sir,—Since I addressed the communication on this subject, which you inserted in last week's *Mining Journal*, it occurs to me, that I did not fully enter into the character of the gun cotton, as regards the bulk it would occupy in practice. Take, for instance, the blast hole, which we may average at about 2 ft. 6 in. deep, the length of that hole between the powder and the orifice, would be about 2 ft. 3 in.; but with cotton, which would take up nearly seven times the bulk, it would leave the stopping so close to the orifice, that the explosion would drive it out before it; this was proved by me in an experiment I made, when the clay with which I plugged the hole was forcibly expelled; to obviate this, therefore, the only expedient would be, to bore proportionately deeper, which would incur an excess of labour, and consequent expense.—Tamper: *London, Oct.* 28.

MONMOUTHSHIRE AND GLAMORGANSHIRE BANK—VICTORIA IRON-WORKS.

Sir,—I have read with pain, mingled with some pleasure, the letters of "Looker-On"—with pain, because I find upon inquiry that the statements of "Looker-On" are in the main points too correct; with pleasure, because I think it high time that we, unfortunate shareholders, should be roused from our lethargy, and look after our own affairs a little. I would wish not to pass any ill-natured strictures on the directors or Mr. James Beaumont, but will they tell me, if they ever heard of a joint-stock iron-work (and the Victoria is such) being carried on without a half-yearly or yearly statement of affairs to the proprietors—surely, we have a most just right to expect an *explicit* statement, and can demand one; and if such is not the case, the sooner we, shareholders, obtain the Lord Chancellor's interference the better. Under present circumstances, neither the directors nor Mr. James Beaumont can be surprised if there weekly appear a letter from "Looker-On"—or others, as long as our directors love darkness rather than light (and they must allow they give just cause for the expression). You, Sir, I trust, will always give place in your valuable columns to a writer, whether anonymous or not, who can in any way unveil *dark doings*, and rouse unfortunate shareholders to the real state of affairs. From strict inquiries I have made, I find it is too true that upwards of 20*s.* per ton *must be lost upon every ton of iron made at Victoria*—I challenge a correct contradiction. Oh! ye shareholders of the Monmouthshire and Glamorganshire Bank—be up and doing, or ruin is inevitable.

Abergavenny, Oct. 21. —— Too Large a Shareholder.

INCRUSTATIONS IN STEAM-BOILERS.

Sir,—Whether Dr. Ritterbrandt has been guided, as asserted by a good chemist, in his patent for the prevention of incrustations in steam-boilers, I do not pretend to know; but if it be true, that he had attempted to substitute *sulphate of ammonia* for muriate of ammonia, he certainly was floundering in a cloud of his own creation; and by the formation of sulphate of lime, it would have been from *bad to worse*. The phenomenon is one of *double decomposition*. In the employment of muriate of ammonia, where carbonate of lime is the cause of incrustation, the results would be, muriate of lime and carbonate of ammonia, both soluble salts—the latter volatile—and would seriously interfere with the copper and brass work, which it would attack, and form ammonio-carbonate of copper. In the case of the incrustation proceeding from sulphate of lime, sulphate of ammonia would be formed, and muriate of lime, both eminently soluble; but in this case, too, ammonio-sulphate of copper would be produced by the contact. I confess that I think a little muriatic acid simply, is better than "sal-ammoniac," in the case of carbonate of lime; and it occurs to me, where sulphate of lime is the evil, *nitrate of soda* will be the safest remedy—nitrate of lime, and sulphate of soda, both soluble salts, being formed.

Portland-place, Hull, Oct. 18. —— J. Murray.

THE LEAD TRADE—SALES OF ORES.

Sir,—I was much gratified by the statement given in your Journal of October 3, relative to the sale of lead ores, and considered you as deserving a vote of thanks for the trouble you have taken to produce that account, and I take this opportunity for myself most sincerely to thank you for it. I have been looking week after week to see what use, or reply, any person connected with mining would appropriate, or answer give, to my letters; but at present have not seen anything at all relating to them from the proper parties. I invited all concerned, as regards pursers, captains, agents, managers, or whatever they may be pleased to call themselves, to express their sentiments upon this particular subject; but no one has ever yet deigned to enter the field, either for or against my proposition—which is, to have the sale of lead ore by ticketings and public competition, the same as copper ores are sold.

Your remarks, Mr. Editor, upon the lead trade I see have aroused some one to reply to them in a most odd manner, and I think it will puzzle any one to understand what "Miner" means by his letter in last week's Journal; he says, he considers the smelters a set of rascals, and the miners are cheated, *yet these same smelters give as much for the lead as it is worth.* "Miner" says, the "triumvirate" do fix the price themselves, and never vary from it, and no other persons could afford to give more; as a proof of that, he says, Mr. Eyton constantly attends the breakfast at sales of ore, but rarely buys, because he *manages better*; he, being a colliery proprietor, barters coals *for lead*—thus, it is evident, the advantage to him is *very great*, because the money he *realises by the sale of the lead* gives him an *enormous price for the coals he supplies for it.* There is no competition amongst buyers at any of these sales, nor can there be, as at present conducted; because no body but these three or four parties, mentioned in "Miner's" letter, have any knowledge of when and where the sales take place: the consequence is, as a matter of course, these favoured few make their own terms, and do just as they like—and quite right on their part that they should make their own terms, while the proprietors are silly enough to let them. If I wanted to buy copper, Mr. Editor, for smelting, I have only to look in your Journal; and there I can find when any sales are to take place, where it is to be sold, with the quantities from each mine, and what mines it comes from: but if I want to buy lead for smelting, looking into your Journal is no use; and if I inquire of others, nobody knows anything at all about it. What I contend for is, in all cases of the sale of lead and tin ores, &c., the ticketings should be the same as for copper ore, and a notice sent to the *Mining Journal* two weeks before the day of sale, or thereabouts, when and where the sale is to be held, and what time in the day: this would prevent much suspicion and ill-feeling on the part of proprietors; because, if they doubted the correctness of returns, they could go and see for themselves at any time they pleased. I do not contend for this plan to be adopted at Holywell in particular, but for Cornwall, Devon, and other counties, wherever lead and tin ores are obtained; the trouble is but very little to do it, and the benefit and satisfaction will be very great. The letter of "Miner" is not intended at all to alter the present system; but, in my estimation, it is designedly meant to prevent any change taking place in the sales of these ores; I cannot help thinking every mine proprietor, who wishes his own interest then to be improved, would be glad to effect a change as above.—M. P. R.: *London, Oct.* 15.

THE "GREAT BRITAIN"—SUGGESTION FOR HER REMOVAL.

Respected Friend,—The different plans adopted for removing the *Great Britain* from her position having failed, I will beg permission to suggest a mode by which I would have great hopes of success. I may here premise, that I would have penned a few lines on the subject, had I not felt a diffidence in suggesting any plan, while so many individuals, who had the management of the work, were adopting those plans which suggested themselves, immediately after the accident. It, however, frequently happens, that the greatness of a calamity is the cause of efficient remedies being lost sight of. The mode which can be adopted—the first being chosen in preference to any other—I would propose to construct a huge bag or cylinder of vulcanised India-rubber, or any other flexible water-tight material, of about 6 feet in diameter, and of a length equal to the longitudinal circumference of the vessel; and to fasten it at low tide around the vessel, as near the keel as possible, by means of chains and beams, and then to inflate it with air. The tide on rising would act on this immense body of air, giving it a tendency to rise above, and thus cause a considerable buoyancy: the steam-tugs, being then used, might draw the vessel off the shore.

Of course, this process would be attended with considerable expense. The India-rubber alone would cost about 1200*l.*; but then it would not be destroyed, and might be afterwards used for other purposes. But if no attempts are made to raise this magnificent vessel, it is to be hoped that another vessel of the same will be immediately commenced. The experience made by the engineer, under whose superintendence the *Great Britain* was built, would seem to warrant the supposition, that a vessel of equal size could be completed with much less difficulty; while the improvement made in the construction of large engines would probably permit only two being required, instead of four. This may be considered a national affair,—and, consequently, one which deserves the attention of the scientific world. A Frenchman, who was a passenger in the *Great Britain*, has since written an account of the accident in the French papers, in which he complains of the large size of the vessel—giving his opinion; that it is not safe to construct steam-vessels of more than 450 horse power; as if the size of the vessel, and immense power of her engines, was in any way connected with the accident. The Frenchman might rather have been thankful that he was not in a small vessel—as, in that case, it is probable that many lives would have been lost, and, perhaps, no one left to complain of the *small* size of their bark.—John De la Haye: *London-road, Liverpool, 10th month 20th.*

CENTRAL HEAT.

Sir,—I know not what arguments Mr. De la Haye can assign, to disprove the existence of central heat, to the extent of fusion; but many strong proofs can be adduced, to show that such a state of central fusion really does exist—and I look upon it as a truth almost self-evident. The earth's form is that of an oblate spheroid; and this is the form which a fluid mass would assume, when put in motion—as the earth is put in motion, and acted upon by similar forces. There is, therefore, strong evidence for supposing, that the earth assumed its present form according to the laws which govern its motion; but it could not have accommodated itself to these laws unless it had been in a fluid state; or, at all events, merely covered by a crust, or shell, which could be easily adjusted to the surface of the internal fluid spheroid. I, therefore, conclude that the interior of the earth must have been formerly in a fluid state; and the specific gravity of the earth precludes the possibility of this fluid having been any thing very far differing, in its weight and density, from many of the volcanic products of the present day; so that, if it ever has been fluid, its fluidity must have been that of earthy matters fused by heat; and it must either be now in that state of fusion, or solidified by cooling. Without going to the limit of the ascertained increase of internal heat, as a shaft is sunk towards the centre of the earth, it will be sufficient to assume, that the increase of heat is 10° for every one-fourth of a mile in depth, and this is below the true ratio of increase—then, at a depth of 300 miles, the temperature will amount to 12,000°; and this is quite sufficient to liquify any earthy matters composing the internal portion of the earth.

A great increase of temperature has in all quarters of the earth been observed in shafts, increasing as the depth of the shaft increased. Boiling springs come up from a greater depth still, and melted lavas from a yet deeper source. Wherever the crust of the earth is thinnest, volcanoes break out; and when any agitation of the fluid matter takes place, either from water breaking in upon it, or from some other hidden and powerful chemical agency, the superincumbent crust of solid matter bends and moves, even to the surface, in waves, just as a thin sheet of ice will bend to the undulations of the subjacent water, and this is called an earthquake. When the agitation is very great, the strata break into deep chasms, which again close up as suddenly as they were opened.

To say that strata of solid rock can bend may seem absurd: but I have seen a slab of common sandstone, 5 ft. long, and 1½ in. thick, placed on supports, and made to undergo a deflection of 2½ in. without breaking; and had the thickness been 100 miles, with a proportionate length, the deflection would have been augmented in an equal ratio—so that the waving of the surface during an earthquake is easily accounted for. When an earthquake has ceased, the shaken, and, perhaps, disjointed, superincumbent crust, returns to an equilibrium by subsidence, and the fluid lava is forced upwards, wherever it can, by means of a volcano, find an outlet. Hence earthquakes almost always *precede* the eruptions of volcanoes; and in the vicinity of a burning mountain, the flowing of the lava gives relief to the fears of those who, at a distance, have only to dread the force of the earthquake. Extinct volcanoes exist in every quarter of the globe; and it is probable, that the solid crust now covering the earth, was once thinner and more liable to be shaken, and torn up, by internal agitation, than at the present day. It does not follow, that the interior has cooled down by radiation; but it is most probable, that the absolute quantity of heat remaining invariable, the intensity of it has increased, and become concentrated within a smaller sphere, leaving a greater external thickness of solid covering.

The crust of solid matter is continually affected by changes slowly taking place,—and receiving additions to its thickness, by cooling in some parts, and diminution of thickness in others by fusion. In the former case the specific gravity of the matter crytallised in cooling will be increased, and the crust will at that part be slowly depressed by subsidence. In the latter case, the expansion of the crystalline matter, during fusion, will cause the slow up-heaval of the superjacent crust.

It is impossible to say, whether the earth will, or will not, explode; but it is certain, that it will eventually be destroyed by fire, and the fountains of the great deep will again be broken up, not with water as before, but with liquid fire, in whose waves the present system of the creation will be finally submerged.—Robt. Mushet: *Coleford, Oct.* 22.

MR. JOHN SCOTT RUSSELL'S NEW SYSTEM OF SHIPBUILDING.

Sir,—In resuming my remarks on the system of shipbuilding, proposed by Mr. John Scott Russell, and designated as the "wave system," I will again return to the relation it is necessary to maintain between the position of the masts, and the broadest part of the vessel, in order to assure a perfect concurrence between the forces governing the motions of the vessel in the water, and those effecting her propulsion by the action of the wind on the canvas. It is by the action and reaction of those different resistances, one upon the other, that the vessel is enabled to perform the many and various evolutions in the water, which so much astonish the uninitiated, and conduce to the delight of the sailor at the handiness of his vessel; but unless due consideration is had in the construction of the vessel, and care taken to preserve the right balance of those forces, giving the preponderance in the required direction, the vessel will prove unmanageable under her canvas, at the same time that she is uneasy and laboursome in a seaway. Were the broadest part placed, as Mr. Russell proposes, at one-third from aft, on the ship being close hauled, the whole of the canvas spread on the mainmast, would be acting in conjunction with that on the foremast to pay off the head of the vessel from the wind, which tendency no quantity of canvas that could be set on the mizenmast would be able to resist, especially as that mast would be much nearer the broadest part than even the mainmast—consequently, it would be either impossible to keep the vessel to the wind; or the helm being continually required a lee, would, by increasing the resistance to the propelling power, much slacken her head way, and also materially increase the amount of lee way she would make—at the same time, should a strong sea be running on the weather bow, the vessel would fall off before the swell; and, if beating on a lee shore, it is unnecessary to ask, what would be her fate? Now, the foremast should be placed immediately before the line of the tranverse section of the broadest part, and be stayed to stand quite perpendicular, or "dead upright," as the seamen would call it—so that the leverage arising from the pressure of the canvas spread on it, may be made to act in any direction, by either filling or backing the sails, as the manœuvre about to be performed may require: the canvas spread on this mast by its position on the broadest, and, consequently, most buoyant, part of the vessel, has most effect in propelling her when close upon a wind, as is proved by the fact that, when the head yards are thrown to the mast—or, to speak within the comprehension of your non-nautical readers, when the sails are so placed as to receive the wind from forward, pushing the canvas against the mast—the vessel at once becomes stationary, or, ceasing to go a-head, makes nothing but lee way. This is not the case when the main-yard is thrown aback, and the canvas on the foremast remains full; the vessel, under those circumstances, continues to forereach considerably more than she drives to leeward—this at once proving the great importance to be attached to the foremast, and the canvas sett on it; also, at the same time, the necessity of placing it in proper connection with the broadest part. In many of the vessels built at Sunderland, where, in order to enable the builder to work straight timbers into the bows, the vessels are rendered narrow forward, and lean, and cowardly about the harpens, it is found necessary to trim them by the head before they will either sail or steer well; because, by thus putting the head deeper in the water than the after end, it obviates the defect of the narrow bow, by increasing the resistance in the wake of the foremast—at the same time, by raising the after end, it narrows the water line in that direction, and so assists the leverage of the rudder. Any sailor practically acquainted with the kind of vessel named, will at once admit the justness of my remarks.

I have gone somewhat fully into this subject, because it was necessary to show how requisite it is to preserve the relative position between the broadest part of the ship and the masts. The mainmast should be stepped directly abaft the centre of the keel; and not being like the foremast, stayed upright, but with a rake aft of a few degrees, it will pass through the deck a few feet abaft the midship transverse section, and the square

mainsail, with the tack secured to the chestree, which ought also to be abaft the broadest part, being the most powerful sail in the ship, will, when upon a wind, lift the vessel bodily over the sea—but should the broadest and most buoyant part be abaft the mainmast, the power and energy of this sail would be neutralised by the manner in which it would depress the narrow bows into the water—thus both deadening her way, and causing the waves to roll fore and aft along her decks.

With the mizenmast in its proper position abaft the mainmast, they will jointly conduce to keep the head of the vessel to the wind, without any assistance from the rudder—indeed, to make the vessel hold her way good when close hauled, the energy of the canvas set on the main and mizenmasts, ought to be sufficiently strong to require a slight operation of the rudder to counteract its effects—that is, to make her what the sailors call "carry weather helm,"—because, should it be requisite to call in the rudder to the aid of the after canvas, the resistance it offers on the weather side of the stern post, causes the vessel to make lee way: this is what nautical men call "carrying a slack helm." I must apologise for the length of my letter, and the rather dry detail of nautical phrases—but it was necessary to explain all this, in order clearly to show the utter impracticability of placing the broadest part of a ship, as proposed by Mr. Russell, at "one-third from aft." I will next week proceed to inquire into the resistance arising from the displacement of water at different depths.

I will thank you to correct an error which occurred in my letter of last week, from the transposition of two words: in the third line below the figure, "to drive her before," ought to read, "to drive before her the weight of water so accumulated."—NAUTICUS. *Oct.* 27.

Mining Correspondence.

ENGLISH MINES.

BARRISTOWN.—The lode in the 24 fm. level end, west of engine-shaft, has produced some good work during the last week; but at present it is not so good—still producing some ore; lode very regular, underlaying 1 ft. in a fm. The 18 fm. level end, west of flat-rod shaft, is producing about 1½ ton per fm.—underlay of lode 4 ft. in a fm.; the 18 end east is producing over ½ ton per fm.; considerably improved in appearance since my last, underlay of lode 5 ft. in a fm. The lode in western winze is producing about 1 ton per fm., underlay 4 ft. in a fm. The lode in the 12 fm. level, west end, is also improved, producing over 1 ton per fm.—underlay 4 ft. in a fm. We have been obliged to suspend the working of Nangle's shaft this week, from the great increase of surface water. The engine working off has not been able to keep it. The adit level, in 50 fms. more, will unwater this at a depth of 2 fms. under present bottom of Nangle's shaft; our operations at this point must be confined to sinking of the new perpendicular shaft to the north of Nangle's for the winter. There is nothing new at Clon Mines: adit end still driving north, and hope to ship a cargo of 40 to 45 tons of lead next week, should the weather permit; but if it should continue as unfavourable as it is at present, we could not ship.—T. ANGOVE: Oct. 23.

BEDFORD UNITED.—At Wheal Marquis, the lode in the 80 fm. level east is 2 ft. wide, composed of spar and mundic, with good stones of ore—altogether very kindly. The 70 fm. level east has been stopped for the past week, and the men put to rise, for the purpose of effecting the much desired communication with the 58 fm. level. The lode in the rise is 2½ ft. wide, producing good saving work. The lode in the bottom of this level (the 70) is worth about 15*l.* per fm. The lode in the winze, in the 58 fm. level east, is 2 ft. wide, and still worth 10*l.* per fm. At Wheal Tavistock, in Phillips's engine-shaft, there is no important alteration. The lode in the 47 fm. level east is 2 ft. wide, and west 18 in. wide, composed of spar, mundic, and ore. In the 35 fm. level east the lode is 18 in. wide, producing good stones of ore. The south engine shaftmen are now engaged fixing plunger-lift; consequently, little has been done in the shaft. The lode in the adit level is 18 in. wide, gossan, spar, and ore—a very kindly lode.—J. PHILLIPS: Oct. 27.

CARADON UNITED.—I with much pleasure inform you, we have nearly completed the top run in the engine-shaft; and hope, by Tuesday next, to commence clearing up the bottom of the shaft; and trust, by the latter part of next week, to get into the present end of the 30 fm. level, which we intend to resume driving, to intersect the different lodes south of the shaft with all possible speed. We have met with good proportions of copper ore (grey) in our top run; and also, to-day, in the adit, two good stones of copper were brought up; and I believe, from appearances, we are very near the cross-course; as soon as I see an alteration, I will write you again.—W. PENROSE: Oct. 24.

CALLINGTON.—I beg to inform you, that we have just cut the lode at the 100 fm. level, north mine; it is 6 in. wide, intermixed with silver-lead ores; the matrix of the lode and clay slate on each side are very congenial. The rise in the back of the 90 fm. level has been holed to the winze in the bottom of the 80 fm. level, laying open some valuable tribute ground and ventilating the end, which is reset; in the north end we are opening tribute ground. In the 80 fm. level the lode continues disordered, being near an east and west course. In the 70 fm. level the lode has not been taken down. At Kelly Bray we are unable to proceed with sinking the shaft, the late heavy rains having completely overpowered us—previous to this we were perfectly dry. In the 112 fm. level, driving north from Johnson's engine-shaft, we are opening tribute ground; Johnson's lode is much the same as reported on last week. In the 100 fm. level, both north and south, the lode is improved; the ground we are opening will set at a moderate tribute. The 90 fm. level, in each direction, is extending through tribute ground. In the 80 fm. level the lode continues productive.—J. T. PHILLIPS: Oct. 26.

CONSOLIDATED TRETOIL.—The lode in Henwood's shaft, sinking under the 70 fm. level, is 18 in. wide, producing but a small quantity of ore. In the 70 fm. level east the lode is 15 in. wide, orey throughout. In the 60 fm. level, west of Williams's shaft, the lode is small and unproductive. In the 50 fm. level, east of Henwood's shaft, the lode has not been taken down since last reported; in the 50 fm. level, east of John's shaft, the lode is 1 ft. wide, improved since last reported.

CUBERT SILVER-LEAD.—There is no alteration in the ground in the engine-shaft. In the 25 fm. level, going west, we have driven through the elvan, and find the lode just now in a disordered state—small also, and unproductive; going east at this level the lode is divided into two parts, each being about 6 in. wide, composed of soft spar, a great deal of mundic and lead, (but not rich for the latter). In the 15 fm. level, driving east, the lode is again got into gossan, and at present rather hard, but yielding rich stones of lead; the western level here is very promising—lode 18 inches wide, pretty good saving work. The appearances of the tribute pitches are much as they have been reported to you before. Our computed samples of ore weighed this day 51 tons and 7 cwts., purchased by Messrs. Walker, Parker, and Co., Chester, at 11*l.* 18*s.* 6d. per ton (612*l.* 8*s.*)

EAST TAMAR CONSOLIDATED.—At Whitson, in the 54 fm. level, north of Hitchins's shaft, the lode is 2 ft. wide—saving work. In the 54 fm. level south, the lode is 2½ ft. wide—good work. In the 46 fm. level south, the lode is 18 in. wide—very much improved since last reported. At Furzehill, in the 38 fm. level, north of Harrison's shaft, the lode is 20 in. wide, and work of a good quality. In the 38 fm. level south, the lode is 18 in. wide, 1 ft. very good work. In the 30 fm. level south, the lode is 2 ft. wide, good work. Our tribute department is looking very promising.—B. ROBINS: Oct. 27.

GREAT MICHELL CONSOLS.—In the 20 fm. level, east of the engine-shaft, the part of the lode now being carried for the whole width of the level, is principally gossan, of the finest description, with good stones of ore in places; in this level, west of the shaft, not any of the south part of the lode has been taken down; the north part thereof is without important alteration. The ground in the engine-shaft, sinking below the 20 fm. level, still continues favourable.—T. RICHARDS: Oct. 27.

GREAT WHEAL MARTHA.—We beg to say, that the new engine-shaft is now sunk 22 fms. below the adit, making from the surface 34 fms.; the ground continues favourable, and every thing is being done to facilitate sinking. The very unfavourable weather prevented the men from doing but little towards opening on the lodes in Sharrel's bottoms since our last report.—J. PRINCE; T. PENALUNA: Oct. 24.

GUNNIS LAKE.—At Chilsworthy, in the 12 fm. level, west of Bailey's shaft, there has been no lode taken down; in the 12 fm. level east, the lode is 3 ft. wide, composed of gossan and spar, with stones of copper ore in places. The lode in Bailey's engine shaft is 3 ft. wide, producing good stones of ore in places—a very strong kindly lode.—W. RICHARDS: Oct. 27.

HANSON.—In reporting on these mines this week, I beg to say, Stainsby's engine-shaft, sinking under the 22 fm. level, now below the 22, is about 9 fms. 3 ft.—the lode in which is 3 ft. wide, with some ore at times. Since my last report, we have driven a level 5 fms. below the 22, from Stainsby's engine-shaft, west to sump whim-shaft, and have commenced rising from said level to the 22 fm. level, in order to get the said shaft down to the 32 as early as possible, after the engine-shaft is down, to save the expense of drawing the stuff to the 22 by men; our lode in the back of the 22, and also in the bottom of the 12, or counter lode, is favourable for ore.—Z. WILLIAMS: Oct. 26.

HAWKMOOR.—In the 15 fm. level, east of Hitchins's shaft, the lode is disordered by a small cross-course.—P. RICHARDS: Oct. 27.

HOLMBUSH.—I beg to inform you, that some of the shaftmen are engaged in finishing the trip plat, and others in stoping down the piece of ground below the 110 fm. level, preparatory to fixing the rods in the sump winze. The ground in the 120 fm. level, south of Hitchins's shaft, is favourable for driving, by extending 2 fms. more in that direction, we expect to intersect the lode; the lode in the 120 fm. level, east of Hitchins's shaft, is 1 ft. wide, composed of mundic, spar, and good stones of ore; in the 120 fm. level, west from the winze, the lode is 14 in. wide, and worth 6*l.* per fm. The lode in the rise above the 110 (on the north part) is 12 in. wide, composed of ore, mundic, and spar. We expect to make the communication to the winze, sunk below the 100, in the course of next week; in the same level, driving south, on the flookan part of the lead lode, we have favourable ground, and good stones of lead; we have about 4 fms. further to extend this level to intersect the copper lode, agreeable to the underlay. The lode in the stopes, in the bottom of the 100 fm. level, on the north part, is 18 in. wide, and worth 14*l.* per fm.; in the 100 fm. level south the lead lode is 2½ ft. wide, composed of flookan, spar, and stones of lead; the pitches in the back of this level are still producing some very good lead ore, and the men are getting fair wages in the tribute.—W. LEAN: Oct. 27.

LEWIS.—At Wheal Nutt engine-shaft, the lode in the 60 fm. level end east is 1 ft. wide, saving work for tin; the lode in the 60 west is 2½ ft. wide, worth 40*s.* per fm. for tin. The lode in the 50 fm. level end east is 4 ft. wide, worth 50*l.* per fm. for tin; we are continuing to drive the cross-cut south at the 50, west of engine-shaft, in order to intersect the south branch, ground favourable. The lode in the 40 fm. level end east is 2½ feet wide, worth 3*l.* per fm. for tin. The lode in the 40 fm. level west, on south branch, is 8 in. wide, worth 45*s.* per fm. for tin. The lode in the 30 fm. level end east is 2 ft. wide, worth 50*s.* per fm. for tin; the lode in the 30 end west, on south branch, is set at 10*s.* per fm., and 10*s.* tribute; the back and bottom of this level is set at an average tribute of 11*s.* We are also extending our cross-cut north, at the 20 fm. level, from copper ore shaft, ground favourable, when we expect shortly to intersect the north lode (or lode in the Bush shaft). The lode in Bush shaft sinking under adit level, is 18 in. wide, producing some tin, with occasional stones of yellow copper ore, and very promising. We are losing no time, and using every effort that is possible, in order to get our stamping engine to work, as we never lay in so great a want as at present—the tinstuff is accumulating so fast, that we scarcely know where to put it.—S. S. NOELL: Oct. 24.

MENDIP HILLS.—Stainsby's shaft is sunk 9 ft. below the 38 fm. level, the lode is at present 8 ft. wide, 3 ft. of which, on the foot wall side, is composed of flookan, with branches of good looking spar, and with lead disseminated through it, assuming a promising appearance—it is not only my opinion that this lode will in depth prove a productive one, but every one that has seen it pronounces the same opinion. The lode in the 25 fm. level, north of Barwell's shaft, has increased in size since my last report, being now about 3½ ft. wide, consisting of quartz and flookan, with small cubes of lead in places; this end is now about 8 fms. from the shaft. I hope we shall, in the course of driving 7 or 8 fms. further, meet with the cross branches mentioned in a former report.—F. C. HARPUR: Oct. 26.

NORTH WHEAL ROBERT.—After a careful examination of this mine, I beg to hand you my report. The adit level has been driven about 70 fms.; the end is poor at present, but in promising ground; 18 fms. east of the end is a winze sunk about 4½ fms., and an end driven 5 fms. through a lode that will average 3 ft. wide, very strong, producing good stones of yellow ore, spangled with lead; should the lode continue to improve, as it has for the last 6 fms., at the next level it will be a good lode; the ore is making above the back of the level, where the surface is more level, and the strata give good indications of the lode yielding plenty of copper in depth. In reference to the locality of the mine, I think a better one could not be selected; and, from many years' experience in the richest mines, near the granite rock, I do not hesitate to say so. The speculation is a good one, and, of course, I would recommend it to any company. Since writing the above, being anxious to ascertain the quality of the lode a little deeper, I set men to sink the old winze, and succeeded in sinking 1 fm.; the lode is still improving, as may be seen by the ores in the counting-house. For the future working of the mine, I should propose sinking a new shaft 14 fms., and cut the lode, keep two men driving the adit, &c. I found two distinct lodes in the top of the hill, and I have no doubt as the lodes are worked deeper, and become more settled, each will be productive.—W. HEATH.

PENTUAN WHEAL MARY.—On the 21st inst., we set the level to drive by four men, close into the hill, at 30*s.* per fathom for 5 fms.; the ground being a beautiful strata, we expect to cut the lode in a very short time. Since my last report, I have received information from a miner who saw the lode open in the valley: he informs me, that the lode is from 6 ft. to 8 ft. wide, and from which he took large stones of solid ore from 40 lbs. to 50 lbs. weight in a stone. In driving to hill, we have discovered some very fine branches tending to the lode, interspersed with copper ore, holding out flattering prospects of a good lode in advance.—J. CHYNOWETH: Oct. 29.

TAMAR SILVER-LEAD.—In the 160 fm. level the lode is 1 ft. wide, composed of capel, with spots of ore. In the 145 fm. level the lode is 18 in. wide, and work of a coarse quality. In the 135 fm. level the lode is 9 in. wide, saving work, but not rich. In the 125 fm. level the lode is 2 ft. wide, saving work, and of a promising character. In the 115 fm. level the lode is 6 in. wide, producing a small quantity of ore. In the 105 fm. level the lode is 18 in. wide, composed of capel, with good stones of ore. In the 145 fm. level, north of the shaft, the lode is 1 ft. wide, interspersed with ore throughout. The incline plane shaft is sunk 12 fms. below the 115 fm. level, and the ground still favourable for sinking. At North Tamar, in the engine-shaft, the lode is 1 ft. wide, unproductive. In the 60 fm. level, north of the shaft, the lode is 18 in. wide, composed of can, capel, and ore, saving work. At Wheal Hancock, we are cross-cutting east, and the ground favourable for driving. At Hole's Hole, we are still cross-cutting towards the lode; the ground is composed of killas, with occasional spots of silver-lead ore.—J. SPRAGUE: Oct. 26.

TAVY CONSOLS.—The lode in the shaft is much improved; it is altogether about 4 ft. wide, with a branch of very good ore in the middle, about 9 in. wide. In the 12 fm. level we broke through the south wall, and discovered a lode of mundic and ore, about 1 ft. wide, which is still going down. The winze is down about 9 fms., but poor for lead. We have discontinued the deep adit level for the present.—A. W. MARTYN.

TINCROFT.—I beg to hand you my report of the state and prospects of these mines. We have not cut the lode at the 100 fm. level in the north mine; but have got so near it, that the water is drained down from a winze, sinking below the 90 fm. level, in which we have a lode worth 15*l.* per fm. for copper ore. The lode in the 90 east is 2 ft. wide, unproductive at present; we have not yet seen the lode beyond the cross-course in the 90 west. The lode in the 80 east is 2½ ft. wide, worth 6*l.* per fm. for copper ore, with some tin. The lode in the 70 east is 4 ft. wide, worth 10*l.* per fm. for tin, with some good stones of copper ore; the back and bottom of this level will work at a low tribute. The lode in the 80 west is 3 ft. wide, worth 20*l.* per fm.; a winze sinking in the bottom of this level is worth 25*l.* per fm. The lode in the 70 west is 20 inches wide, worth 6*l.* per fm. The 60 west is suspended to sink a winze in the bottom of the level; lode in winze 2 ft. wide, producing some ore, and kindly. The lode in the 50 west is 20 in. wide, yielding some tin and copper ore: some of our pitches have improved since last report. Palmer's shaft is now nearly to the 80 fm. level (on the south lode), the north lode still standing to the north of the shaft. The lode in the 70 fm. level west is 2 ft. wide, orey, but not rich. We are rising in the back of the 60 fm. level west, where the lode is 2 ft. wide, worth 12*l.* per fm. Our pitches in this part of the mine continue much the same as for time past. In the south mine the lode in the 152 fm. level west is 3 feet wide, worth 15*l.* per fathom; the back of this level is now working at a third tribute—men getting fair wages. The stopes east of the engine-shaft, below the 152 fm. level, is producing fair quality tinstuff—men getting fair wages at 7*s.* out of 20*s.* The lode in the 142 east is 4 ft. wide, worth 30*l.* per fm. The lode in the winze, sinking below the 120 fm. level, immediately over this end, is 4 ft. wide, producing some copper ore and tin, and very promising; the lode in the 120 east is 3 ft. wide, worth 8*l.* per fm. The lode in the 110 east is 3 ft. wide, worth 10*l.* per fm.; we have just now holed a winze on this end; we shall now continue the level east, and drive south to cut the south Highburrow lode, under where we have a pitch working in the bottom of the 100, at 1*s.* tribute; the stopes in the bottom of this level, on the north part of the lode, is worth 25*l.* per fm.; our pitches generally, in this part of the mine, are looking well. The ground continues favourable for sinking the new shaft in the north-west part of the mine, now down 28 fms. from surface. Wheal Providence engine is working well; we have got the water down 13 fms. from surface, and have put men to clear the adit; we hope soon to have all the water down. I expect we shall sell 1260*l.* worth of tin next Monday or Tuesday, which will be three weeks from our last sale. On the whole, I am glad to say our prospects continue good.—W. PAUL: Oct. 26.

TRELEIGH CONSOLS.—In the 100 fm. level, east of Christoe's, the lode is about 2 ft. wide, still producing stones of ore, improved from last week; in the 100, west of ditto, the lode is small, no mineral. At Garden's shaft, below the 90, the men are cutting ground and preparing to fix the plunger lift at the 90 fm. level; in the 90, west of ditto, the lode is 2 ft. wide, rather fallen back this week, worth about 20*l.* per fm. In the 80, west of ditto, the lode is 18 in. wide, more promising, but not much mineral. In the winze, below the 70 west, the lode is 14 in. wide, with occasional stones of ore; in the 70, west of Goodfortune, lode rather larger than last week, worth from 8*l.* to 10*l.* per fm. In the 60, west of Symons', the lode is about 2 ft. wide, worth 5*l.* per fm. In the 50 west, on the north lode, the lode is 15 in. wide, but little mineral. In the 44, west of ditto, the lode is 1 ft. wide, no mineral. The adit cross-cut, ditto, driving south towards the west shaft.—W. SYMONS: Oct. 24.

UNITED HILLS.—At the 90 fm. level, in the eastern end, we are still driving south, which is very hard and troublesome; the lode in the western end is 3 ft. wide, 2 ft. good ore; in the stopes, the lode is 2½ ft. wide, 18 in. ore of fair quality. In the 80 fm. level, eastern end, the lode is 3 ft. wide, coarse in quality; driving south of diagonal shaft, no alteration for the past week. In the 70 fm. level, eastern end, the lode is 2½ ft. wide, 18 in. ore of average quality; no lode cut as yet in driving north at this level; we have completed the stopes, and commenced sinking the eastern shaft, below this level—the lode is 3½ ft. wide, 18 in. on the north part ore of average quality. In the 60 fm. level the lode is 3 ft. wide, 2 ft. ore of average quality. In the 50 fm. level the ground in this cross-cut is harder for driving than last reported; in the shallow adit the lode is 3 ft. wide, orey throughout, saving work. At Wheal Charles, in the 50 fm. level, the lode is 2 ft. wide, producing some stones of ore—looking a little better than last reported. In the 40 fm. level the lode is 4 ft. wide, 2 ft. ore of average quality. At Wheal Sparrow, in the 40 fm. level, east of the winze, the lode is 2½ ft. wide, 1 ft. ore of fair quality; west of Richards's shaft, the lode has not been broken since survey day. In the 90 fm. level the stope is completed, and we have commenced driving the 80, west of Turner's shaft—the lode is 1 ft. wide, ore of average quality.—THOMAS TREVENEN; ROBERT WILLIAMS: Oct. 27.

WEST WHEAL JEWEL.—In the 115 fm. level east, on Wheal Jewel lode, lode 1 ft. wide, no improvement since our last report. In the 100 fm. level east, on the same lode, lode 2½ ft. wide, worth 7*l.* per fm. In the 85 fm. level west, on same lode, lode 9 in. wide, unproductive. In the 12 fm. level west, on Tolcarne tin lode, lode 18 in. wide, worth 25*l.* per fm. We have intersected a small cross-course, which has disordered the lode; but I have every reason to believe, against our next week's report, the lode will very much improve. In the winze, in the bottom of the 12 fm. level, east of Quarry shaft, on the same lode, lode 2½ ft. wide, worth 18*l.* per fm. In the winze, in the bottom of the deep adit, west of Quarry shaft, on the same lode, lode 2 ft. wide, worth 8*l.* per fm. In the winze, in the bottom of the deep adit, west of old sump shaft, on the same lode, lode worth 5*l.* per fm.—R. JOHNS: Oct. 26.

WEST WHEAL MARIA.—The engine will go to work on Thursday next, but our flat rods and pit work at the eastern whim shaft will not be got to rights before the end of another week; so the engine will not work for good before all the work is completed. We are getting on with it as fast as possible.—October 20.

WHEAL ADAMS.—In the 50 fm. level, driving south, we have not cut any lode as yet, but I have put them to drive on a branch that they cut in driving the cross-cut, with lead in it; I wish to drive a few fathoms on this branch, to get in under the bunch of lead that, the men say, is gone down in the bottom of the 40 fm. level, which I have not been able to see since I have been on the mine. I want to drive a few fathoms here on this branch, to put the men to rise up under this bunch, and in which we must be governed by the dialling, to come under it. The 40 fm. level, driving south, is much the same as last reported; the rise in the back of the 40 fm. level, on the western lode, we have got through to the winze to-day; but, I have to inform you, they are two separate lodes in the rise; and, in the winze, they are 4 fms. apart. We are driving 4 fm. cross-cut into the bottom of the winze; the one down in the winze, about 5 fms., with a good lode going down in the bottoms and ends of it, much the same as last reported. The rise is up from the 40 about 8 fms., with a good lode going up in the back and ends of the rise; this lode is all in new ground; I do not know if it has been cut any where, but in the 28 cross-cut—there they cut through it, but took no notice of it; I have found it in the cross-cut. I think, if we could get tributers (which we have not here), we might put a good many men on the lode. The lode in the bottom of the winze is all in whole ground; I do not know if it has been cut any where but the 28 fm. level; we have a bunch in the foot wall, in the 40 fm. level, towards the bottom—we had a bunch in driving the end north, on the foot wall. We have driven a cross-cut 8 fms. up, in the rise, to cut into the bottom of the winze; this is a very important thing to us to have these two lodes so close together. The lode in the back of the rise will do in 6*s.* in 20*s.* tribute; the lode in the winze bottom will do in 6*s.* in 20*s.* on tribute; this lode is 4 fms. to the west of the rise. The tribute pitches are much the same as last reported. I intend putting the rise men to drive north on the silver-lead lode, to get off a little to the north, to put them to sink a winze under the 40 fm. to the 50, to find this lode there. We have about 21 tons of lead down at the cellars; and we hope, by the end of this week, to have 6 or 8 tons more down, but we are very bad off for riggers, that we cannot get them to work.—T. MOYLE: Oct. 26.

WHEAL AGNES.—I beg to state to you the prospects of the above mine:—We have driven east on the course of the lode 3 fms., the lode is 20 in. wide, good work; ditto west 6 ft., lode 2 ft. wide, looking very promising. I expect next Saturday, being our survey day, to set a pitch which will set at a moderate tribute. By the latter part of this week, we intend to take a sample of 6 tons, to ascertain the quality of the ore.—B. ROBINS: Oct. 26.

WHEAL ARVOSE.—I am happy to state, that we have holed to the adit level, and that we are driving on the lode at the 15 fm. level, where we have a very kindly lode, with good rocks of copper coming therefrom. We intend next week, to put men to cut the great lode, at the adit level, which is 8 ft. to 10 ft. big, with a beautiful gossan on its back.—D. STRICKLAND: Oct. 26.

WHEAL LOUISA.—Our sumpmen, during the past week, have been engaged in casing, dividing, and securing the shafts. The ground in the bottom of the shaft still looks well. We are getting on rapidly with the level in the south part of the mine; the ground, through which we are driving, is a beautiful decomposed killas, from which we have every reason to think the lode is near—from the present indications a good lode may be expected.—JAMES CHYNOWETH: Oct. 29.

WHEAL WALTER.—I duly received your favour of the 26th inst., and have visited Wheal Walter this day; the B lode is still very kindly, much the same as when last reported; the cross-cut from the engine-shaft, at the 30 fm. level, together with the plat, is driven 6 fms. No appearance of C lode as yet; therefore, you may calculate on my report of distance being tolerably correct. The adit level towards D and E lodes is now driven about 22 fms.—the ground still favourable for driving.—JONATHAN DAVEY: Oct. 29.

FOREIGN MINES.

ALTEN MINES.—The following is the estimated produce for Sept.:—

Mines.	No. of men.	Tons ore.	Per ct.	Tons copper.
Raipas	20	70	8	5·60
United Mines	12	30	4	1·20
Ryper's	10	12	7	0·84
Maneur's	14	13	6	0·78
Old Mine	2	6	6	0·36
Quenvig	4	5	4	0·20
New lodes	6	6	6	0·36
Total	68	142		9·34

Mine Report from 10th to 30th September.

Raipas.—Since my last report there has been an almost incessant fall of rain which has done considerable damage throughout the district; and at this mine we have not entirely escaped. The large quantity of ice collected round shaft No. 2, during this winter, became suddenly loosened by the rain; and falling with a quantity of loose ground and rubbish from the surface, carried away the whole of the timber work in the shaft to the depth of about 16 fms., and six men (who were shortly got out uninjured) were buried in the ruins. This accident will somewhat impede the workings in the eastern part of the mine; but having since erected a new whim and machinery on shaft No. 1, we shall be able to prosecute Labouchere's lode, and the north-west workings, uninterruptedly. The result of the survey, which I have been making here during the last three weeks, points out the necessity of a new shaft to intersect the junction of Labouchere's and the gossan lodes below the shallow adit level. From the surface to the 10 fm. level we have a distance of about 20 fms. to sink, which will probably cost about $600. We commenced sinking a few days ago; and with a series of rises and sinks in the mine, we hope to complete the communication by the middle or latter part of next January. In the meantime, I expect our produce will be somewhat decreased, on account of the number of workmen required to complete the work, and who must be taken from the more productive parts of the lode. This inconvenience will, however, prove but temporary, as the improved quality of the produce from Labouchere's, we expect, will amply compensate for the falling off in the returns of ores of an inferior per centage, from the other parts of the mine. The prospects throughout are extremely flattering, and on the whole have latterly undergone considerable improvement. In the 5 fm. workings, near shaft No. 2, we have two courses of ore—one running nearly east, and the other towards the north-east, where operations will be commenced as soon as the run can be cleared, and the ground secured. Labouchere's lode continues to yield a small quantity of superior quality ore; and from this, as well as the gossan lodes, and a more recent discovery below the adit, near shaft No. 1, we may expect increased returns of ore and copper, as soon as the new shaft is holed from the surface. The whole of the produce, to the end September, is now brought down to the quay at Bossikop, where about 60 tons of ore remain for the closing delivery to the to the smelting-house: this parcel is estimated to contain about 6 tons copper.

United Mines.—Our operations on Ward's lode have been more successful than even our most sanguine expectations could have led us to anticipate. After expending the whole of the reserves towards the west, we returned to the eastern part of the mine, and resumed one of the old workings in shaft E, suspended in 1839; and after exploring only a few days, a small vein of ore was found, which has subsequently undergone a slow, but steady, and apparently permanent, improvement, and from which profitable returns are now making.

Ryper's workings have again been fluctuating; after my last report, a decided improvement was visible in the level, and some good stones of ore were broken—the lode in this part is at present again unproductive; the stopes continue to make uniform returns.

Maneur's.—The lode in the adit is again improved, but the ore is more irregular and disseminated; the prospects are not deteriorated. The lode in the new winze southerly has not yet been cut, but we expect to intersect it about the end of next week; the stopes have undergone no change.

Old Mine.—In consequence of the summer ore dressing operations being closed for the season, the future workings of this mine will be suspended until the spring of next year, unless employment may be wanted for some of the workmen during the winter, in which case a stope might be advantageously worked above the adit for a few months.

Quanvig.—One of the old levels near the sea has been resumed; the lode has yielded a fair return of ore, and, after the level has been driven a few fathoms into the mountain, the backs of the lode may be stoped with advantage.

New Lodes.—Those between Maneur's and Ryper's are poor, and yield com-

partively trifling returns; but another lode discovered lower down the mountain, and between the Old Mine and Ryper's, promises a fair supply of ore during the winter, unless the severity of the weather put a stop to our proceedings before the workings can be got under cover: this is one of the most regular and promising lodes discovered for some time. The ore is not rich; but, from its easy access, may be considered more valuable than many of the richer lodes in less advantageous situations.

Ore Dressing.—The heavy rains have latterly increased the supply of water to the machines, and enabled us to increase our returns to the smelting-house at the end of the month. The winter, however, now setting in with a sharp frost, has put a stop to this branch of the mining department, until the spring of next year. The result of our ore-dressing operations has been highly satisfactory, and in every respect exceeded the expectations we held out at the commencement of the season. The whole of this month's produce of the mines (closing the second half year) will be delivered to the smelting-house in the course of next week—58 tons fine copper have already been returned, and the next delivery will, probably, amount to about 9 tons more, being an excess of nearly 12 tons fine copper on the preceding six months—proving that the improvements, alluded to in my last half yearly report, have been permanent, and that no hopes have subsequently been held out that have not been realised. —S. H. Thomas.

IMPERIAL BRAZILIAN MINES.—*Gongo Soco, Aug.* 3.—A small quantity of work for the washing-house has been obtained from about the 48 fm. level, east of Bayley's shaft; but it is only from a very small bit of unbroken ground. The 48 fm. level, on the hard formation, north of Lyon's shaft, has been discontinued, as it afforded no appearance of improvement or hope of success. Our cross-cut, southward from Duval's shaft, at the 14 fm. level, has at length reached a vein, giving very promising samples, on which operations will be commenced as soon as the requisite ventilation, and other preparations can be obtained. The 14 fm. level, west from the cross-cut, north of Harris's shaft, has been commenced, in order to get beneath the spot at which gold has been obtained in the shallow level above; but it has not yet afforded any thing valuable. We continue to remove such backs as are thought best; but, I regret to say, nothing has occurred since my last to brighten our prospects. The stamping at Catta Preta will be concluded about the end of this month; during that time we are breaking a quartz vein near the house, which about pays its own cost; it, however, holds out no hope for further labours, for the present at least.—W. J. Henwood.

Gold workings from 23d July to 30th July, 8 lbs. 7 oz. 13 grs.; at Catta Preta, from 22d July to 2d August, 2 lbs. 0 oz. 8 dwts.

ST. JOHN DEL REY MINES.—*Morro Velho, August* 8.—Produce from July from Morro Velho, 11,601 oits.; Cata Branca, 144 oits. 18 grs.—total 11,745 oits. 18 grs. = 4·071 per ton; and it appears that the separate stamping of the United Mines is 4·053 oits. per ton—in fact, nearly the same; 202 tons have been rejected during the month. The quantity of ore stamped is very fair, but the quantity of ore rejected is small, and this is, on the whole, the main reason for so low a standard as 4·071 oits. per ton. The east side of the Lyon stamps (15 heads) were stopped for repairs on the 15th inst., and will occupy about eight days to get to work again from that date; the mechanics working day and night core until the works be completed. Cost for July, rs. 31,217 226.

[FROM CORRESPONDENTS.]

Arvose Copper Mine.—We understand that the price of shares in this adventure, which has long stood in our list at 2¾, from few transactions having taken place, is very much below what their real value has been; there are but 128 shares, and the price instead of the above, is about as it now stands in our quotations. We have been informed, on respectable and creditable authority, that some business is doing in the shares, and that there are buyers at 8*l.*, and sellers at 10*l.* per share. This company is likely to do well, and the continuation of the "Unanimity" lode running through the sett, promises once more a bountiful *Harvest*,—which we believe was its first name.

Victoria Tin Mining Company (late the Wheal Fortune Consols and other setts).—We refer to the advertisement of this company in our columns. Various extracts, from the reports and letters of the surveyors and mining agents, state that the workmen have made some very important discoveries in these mines since the 15th of October, inst. These reports state, indeed, "that they have discovered several lodes of tinstuff of excellent quality, and of great extent;" and as such likely to offer a promising return upon any outlay incurred.

Wheal Medlyn.—We understand that this company are progressing favourably—the Chypraze engine has been purchased—and a deputation of the direction, with the secretary, proceed shortly to Cornwall, to arrange the further prosecution: we expect next week to give additional particulars.

Wheal Mary Ann.—From a communication, with which we were favoured by inspection, we learn that the 15 fm. level south is worth about 15*l.* per fm., and the stopes are looking well. The shaft is suspended for the present, in consequence of the influx of water; but the lode in the bottom was good—being 3 ft. wide; and at Wheal Trehane, the lode in the 20 fm. level north was about 18 in. wide, rather poor; but in the bottom of the level the lode was 2 ft. wide, with a course of lead, worth about 15*l.* per fm.; the shaft is also sinking.

THE AUSTRALIAN MINING COMPANY.

An extraordinary general meeting of the shareholders in this company was held at the offices, Adelaide-place, London-bridge, on Thursday, the 29th inst.

S. J. Capper, Esq., in the chair.

The Secretary (Mr. Hodgkinson) having read the advertisement convening the meeting, Mr. Peile (the solicitor) read the report, which stated that the directors had called the shareholders together, as promised at the meeting held in June last, as soon as the committee in Australia had succeeded in obtaining a special survey of mineral land; that was now accomplished—a block of land, of 20,000 acres, had been fixed on near Reedy Creek, 40 miles from Adelaide, which was of an excellent description for agricultural, as well as for mining, purposes; the roads were good, there was plenty of water, and altogether it was a most promising district. Specimens of the copper ores from this survey had been received, and which, on assay, averaged 30 p. cent. So high were the opinions of the gentlemen engaged in the search for a proper site, that they had determined to retain to themselves the 2000 shares which had been agreed to be reserved for colonial distribution. A royalty of 1-15th had been demanded by the Colonial Government; they had, however, remonstrated against the injustice of this impost, and the Lieut. Governor had consented to transmit the correspondence to the Secretary of State, that the question might be settled in this country. Official information had not yet been received; but from other sources the directors had reason to believe, that the survey had been allowed, without prejudice to the question of royalty. The 7535 unappropriated shares would be distributed among the shareholders *pro rata*, as soon as official information arrived that the survey had been settled.

The Chairman, on requesting some proprietor to move the adoption of the report, stated, that the delay which took place in the distribution of the above 7535 shares, arose from the desire of the directors that all should feel satisfied that they were really in possession of what was stated; and, although they had no moral doubt that the block of land was now the property of the company, they wished to have officially communicated, when a *pro rata* distribution would take place, and no distinction would be made; but whether directors, trustees, or large, or small shareholders, all would fare alike.—In answer to a proprietor, he stated the 20,000 acres were in one piece of land, eight miles long by four broad.

Mr. Mackay made some observations as to the appropriation of the 1000 shares to the discoverers; he thought it should be first proved that they actually had a profitable mine.—The Chairman, in explanation, observed, that this same subject had been fully discussed at the last meeting; the gentlemen referred to had spent much money and time in explorations, and had surveyed to a great extent; and as they were so satisfied, as stated in the report, that they took all the 20,000 acres, he thought they ought to be satisfied too.

Sir Hyde Parker assured the meeting that this very question had had the most serious attention of the direction; and it should be borne in mind that, if the parties had not been successful, they would have had to begin, *de novo*; the 1000 shares as remuneration, included future services, and was only 5 per cent. on the whole capital.

A proprietor having remarked on the circumstance of 7535 shares having been unappropriated, the Chairman explained, that while the committee were endeavouring to discover a good mineral property in Australia, the directors were forming the company here—that there were great difficulties in obtaining the proper registration, which delayed time, as they could not appropriate shares while those difficulties existed—that shortly after, the panic arose, and these 7535 shares remained on hand; now they were in possession of valuable property, he thought it but fair to divide them among those who had supplied the capital, in preference to the public or the colonists.—In answer to a proprietor, it was stated, that every holder of 50 shares would be entitled to 42 of the unappropriated shares.—The report was then adopted, and ordered to be printed.

Mr. Penny had received from his brother some correspondence by the *Phabe*, with the last dispatches—in which he stated, he believed the governor had arranged with the committee; and that, at the time of writing (8th June), the surveyors were on the spot marking out the ground.

To a question respecting the royalties, the Chairman said, he had no fear whatever on the subject—the law of tenure in South Australia, under which the 20,000*l.* had been paid, was so well understood, and clearly defined, both there and in England, that he believed so gross an injustice would never be carried out.—A vote of thanks was then passed to the chairman and directors, and the meeting separated.

East Pool.—At the account meeting, held on the 20th inst., the cost for August and September, was shown as 1100*l.* 4s. 2d.—By ores sold August 6 (less dues, 13*l.* 11s. 9d.), 394*l.* 8s. 1d.; sale of tin, as per account (less dues, 11*l.* 3s. 8d.), 324*l.* 7s. 1d.; by debts and materials, 4*l.* 5s.—722*l.* 15s. 2d.: showing loss of 377*l.* 9s., which deduct from balance at last account of 554*l.* 19s. 8d., leaves at present in hand, 177*l.* 10s. 8d.

WHEAL MARY MINING COMPANY (CALSTOCK).

A meeting of the adventurers was held at the offices of the secretary (James Crofts, Esq.), 4, King-street, Cheapside, on Thursday, the 29th inst., pursuant to notice.

John Hays, Esq., in the chair.

The circular addressed by the purser, convening the meeting, was read.

The Secretary proceeded to read letters from Capt. John Tabb, agent of the Lamherooe Mine, who had been requested to examine and report upon the mine, the several letters bearing date the 12th, 15th, and 26th inst., from which it appeared, that it would require some 10 or 12 days to draw the water, so as to allow of access being acquired to the 30 fm. level, when it would, in the opinion of Capt. Tabb, be prudent to place six men at work in dividing and casing the shaft, and further to drive—say, 2 fms. at 8*l.* to 9*l.* per fathom—to intersect the lode, cut plat, &c.; this being effected, it would be desirable to extend east and west on course of the lode, to ascertain its nature, and its prospects, so as warrant further expenditure in its development. In the 20 fm. level it appears there is a strong lode, containing good stones of copper throughout; and, from the encouraging appearance it presents, Capt. Tabb considers it desirable to prove it at a deeper level, and prosecute the workings.

The accounts, up to and including October cost, with balance remaining due at last meeting, held in May, amounting to 286*l.* 0s. 8d. on the Dr. side, with a set off of 100*l.*, thus leaving 186*l.* 0s. 8d. due to the purser, were submitted to the meeting—as also a statement of the shares in default, amounting to 127*l.* whereupon it was resolved—that the secretary do take the necessary steps for enforcing the payment of the arrears in such manner as he may be advised. A new finance committee, composed of the following gentlemen, was then elected: —Messrs. John Hays, J. Pickering, John Edwards, Albert Hays, J. D. Lee, J. J. Hays, D. Nutt, and C. D. Hays. It was then resolved unanimously—that a further call of 10s. per share be made, 5s. being payable on 1st December, and the remainder at the discretion of the committee.

A conversation ensued, from which it was understood that the committee should proceed in further developing the mine, which had been idle for the past few months, in consequence of the absence of water-power, but which, from the late rains, and the approaching season, might be calculated upon—while the result of the discoveries made would determine on the future workings, or the suspension of operations. It was also stated to the meeting, that Captain John Tabb had expressed his readiness to superintend the workings, so as to render the engagement of a resident captain unnecessary during the prosecution of the contemplated workings to test the value of the mine.

KILBRICKEN MINING COMPANY.

A highly respectable and numerous meeting of the adventurers in this company was held at the Grand Hotel, Covent Garden, on Friday, the 23d inst., for the purpose of considering the reports of several mining agents, and adopting measures for immediately carrying into effect the most efficient operations on the mine.—W. C. Evans, Esq., in the chair.—The chairman entered into a detailed account of the past operations, as well as the future prospects, strongly adverting to the probability of a profitable return on the completion of the works, suggested by reports presented. He considered that few speculations presented a more cheering prospect of return than this adventure; and the advantageous terms proposed by Mr. Crockford, being of so favourable a character, he thought that no company could refuse acceding to. After a few remarks on the unanimous feeling which had been manifested by all concerned, he should submit for consideration the resolutions prepared for the perfect establishment of the company, which, having been read, were put and adopted, to the entire satisfaction of all present.

Report of Capt. Richard Williams, of the Godolphin Mines.—The silver-lead ore of these mines, is found between the mountain limestone, and a vast deposit of calcareous spar, under a peat bog. The shafts are sunk on the south end of this great deposit; and the floors or beds of silver-lead, mixed with zinc blende, dip north under it, about 1 ft. in 6, and sometimes less. The sides of this calcareous spar also produce the silver-lead, especially the eastern side, which makes irregular beds, and shoot sometimes into the spar, and often into the limestone rock. The limestone on each side contains also a great many small deposits of yellow clay, near the calcareous spar, and sometimes in it. On the north end of the bog, there is a large course of fine porous chert, which has a yellow gossany appearance; this chert runs east and west apparently, and is at the north end of the great calcareous spar, and from 150 to 200 fms. north from the present engine-shaft: now, there is but little doubt that this floor of silver-lead will continue until it reaches that great course of chert, and it is very likely that the largest part of the beds is where the chert joins the great spar. This peat bog is nearly level for some miles; and in the winter time so much water falls on it, that the present little engines cannot keep it out for near the half of the year—consequently, the work-people are thrown out of employ, and the mine filled with water, and also much injured during the winter months. But, if a large engine were erected on it—say a 80-in. cylinder—and fixed on a shaft further north in the bog—this engine would keep out all the water, summer and winter easily, and flat-rods may be attached to it to work another shaft further north still, so that the spar may be sunk through, and the bed of silver-lead worked in several places at the same time. One of the small engines would make a good crushing machine, which is very much wanted for crushing the ores, as then any quantity may be cleaned—by which means all that is raised may be quickly prepared for shipment; so that, with three or four shafts opened on the floor of silver-lead, there would be from 90 to 100 tons raised each month, besides a proportionate quantity of jack.

Report of Capt. John Williams.—The old engine-shaft was sunk by Messrs. Taylor and Co. on a pipe of lead ore in the spar to the 9 fm. level, where they extended a level to the flat-rod shaft, at which they found pipes and small strings of ore, on which they sunk the underlaying shaft to the 23 fm. level. A level was then continued south in the limestone on strings of ore, which continued to improve until it reached the new engine-shaft, where there is a junction of a slide and cross-course. From this shaft there is a 20 fm. level extended north 20 fms., on a good course of ore, averaging 2 fms. wide, and producing 1 to 4 tons of lead per cubic fm. At this point the spar turns off to the east at right angles, in which direction we have driven 12 fms.—the end is poor, being in a bed of limestone; but 6 ft. above the end there is a good course of ore, going parallel with it—the bottom of this end is good ore ground. Evan's shaft, which is 20 fms. before this end, is 14 fms. deep in spar. At 9 fms. deep, where it left the limestone, there were good lumps of lead ore in clay, which indicate a good lode below—the bearing ground being generally below the 10 fm. level. Opposite this, and Crockford's shaft, the great spar is worked open east to a considerable extent, which produced several tons of lead ore, and in the old working opposite them there were pipes of ore dipping towards the supposed heave, which produced 16 tons of lead ore. Crockford's shaft is 10 fms. deep in spar, containing spots of lead and jack. There is a 10 fm. level driven south into the limestone 16 ft., to communicate with a 10 fm. level extending from the bog shaft—this shaft is on a cross vein, running in a similar direction to that at the new engine-shaft. It is much of the same character, and will, probably, produce the same effect at its junction with the great spar. It produced great quantities of black jack near the surface, which declined in depth, when it greatly improved for lead. This lode is from 1 to 3 ft. wide, and in the last month it was worked it produced about 30 cwts. of lead ore; the water is now into these workings. The lode is not seen east of this; but the appearance of considerable quantities of chert, and other silicious matter, indicates a continuation of metalliferous ground for nearly half a mile east. The 23 fm. level is also extended north from the flat-rod shaft to cut the limestone. In the west end there are strings of lead and jack in veins of spar going in the direction of the great spar, which has been seen near the surface, 30 fms. west of this end; but has hitherto remained quite unexplored. There are several pipes of ore about the old engine and flat-rod shafts, some of which have produced several tons of lead. The largest of these is near the old engine-shaft, which has produced above 20 tons of lead—the bottom of this is just below the bottom of the shaft, and now near 20 fms. deep; it was suspended working last year from an increase of water. These pipes of lead appear to be the offspring of a large deposit below, being of the same character as the numerous ones that are to be found near the new engine-shaft; and the fact of the course of ore in the 20 fm. level, dipping fast towards these shafts, goes to confirm that opinion. I would recommend the erection of a powerful steam-engine on the flat-rod shaft, leaving the present new engine remaining, as an auxiliary, to be worked in the wet seasons (the old engine can be easily converted into a steam whim and crusher); this will enable us, by the application of flat-rods to Crockford's shaft, and the extension of the 23 fm. level west, to lay open the mine for working on a much larger scale. After opening the mine thus, and sinking to a greater depth, we could double our present returns, at a much less comparative cost. Our present returns are 40 tons of lead and 60 tons of black jack per month. About a mile from this, at a place called Oughaville in our sett, there is another deposit of spar (carbonate of lime), similar in its appearance to this formation. The valley is subject to indentations, caused by cross veins—at which places ores have been found, and on which there is every probability of large deposits of ores. There is an available water power here of 50 horse, which is small in summer. There have been ores also discovered in this sett, about half a mile north of the mine, scattered through the lime above in small strings running north and south towards a channel of chert ground, which is a very favourable strata for lead ores. I understand that there are arrangements being made for the drainage of Oughaville grounds, which will greatly increase its value for mining purposes. The extensive bogs of Fanana, Drim, and Monooe—the overflowing of which, in wet seasons, is highly prejudicial to the mines—might be effectually drained for 200*l.*; and as this would permanently reclaim a large tract of land, there is no doubt but the landlord would drain it for agricultural purposes, if applied to—there being every facility afforded by Government now for that purpose, by way of loans, &c.

Report of the Mine Agent.—The extent of orey ground now laid open in the bottom of the 20 fm. level is about 18 fms. long—8 fms. of which the lode is 3 fms. wide, yielding about 1½ ton of lead, and 2½ tons of jack per fm. The remaining 10 fms. the lode varies in size from 3 to 6 feet, producing on an average about 15 cwts. of lead, and 1½ ton of jack per fm. I consider the appearances to be good, and that there could be from 60 to 70 tons of lead, and 180 tons of jack, rose per month after a shaft is sunk—so that the men could work in the backs and bottoms dry; and I have not the least doubt, but what it will be a standing mine, although it is impossible to reduce it to a certainty, but from the indications that are now in sight, it has led me to believe, that it will be a profitable concern, if profitably worked. There is a counter lode near the new engine-shaft, crossing the largest part of the lode (where I have mentioned 8 fms. of which the lode is 3 fathoms wide). This I believe to be the very life of it, and what I put my confidence in to make me say, that it will be a productive, profitable, and lasting mine; but I must also add, that it is now worked in a bad way—in fact, there ought not to be any ore raising. The underlay of the limestone is nearly north, and the underlay of the cauntur is north-west—so that it is throwing the ore under the flat-rod and old engine-shaft; and one of these shafts, I would strongly recommend to be cut down and sank with all possible speed—casing the shaft 12 ft. long by 9 ft. wide engine end, and 7 ft. wide whim end, which size will be required for the pit work, to be put down for the effectual drainage of the mine, and to be master of such an abundance of water. I should advise that a 65 or 70 in. engine should be erected on the old engine-shaft; but as the flat-rod shaft is 14 fms. deeper, and time is a great deal to be looked at, perhaps the flat-rod shaft might do as well,—but the dialling of the ground will show which of these two shafts will be the most desirable to be sunk for a standing main shaft; and I think that the shaft could be cut down, and 10 fms. sunk under the present bottom, by putting four good English sumpmen, and 12 Irishmen, in six months after the engine is erected—then you would be in a position to commence raising ore. I must now return to show the value of the ore which I have stated to be in sight. The lode 8 fms. long, by 3 fms. wide, yielding 1½ ton of lead per fm., which will make 30 tons to 6 ft. deep, at 30*l.* per ton, 900*l.*; and in the same ground there will be 60 tons of jack, at 40s. per ton, 120*l.*; the part 10 fms. long, yielding 15 cwts. of lead per fm., which will make 7½ tons for 6 ft. deep, at 30*l.* per ton, 225*l.*; and in the same ground there will be 15 tons of jack, at 2*l.* per ton, 30*l.*—total, 1275*l.* This, I consider, to be the value of the ore and jack 1 fm. deep, and should it last for only 10 fms. deep, and there is no doubt, in my opinion, but what it will. I strongly recommend the expenditure of 150*l.* to 200*l.* in draining of Monooe and Drim bogs, and Fanana lake—for it is my decided opinion, that the water from these places finds its way into the mine, and every precaution should be taken on the part of the landlord to prevent the occupiers of the land from sinking pits for turf below the drain that is brought through the place. But I think there are other branches of ore to be discovered, and that the mine would be clear of all debts in 18 months after the engine is at work, and in two years there would be a handsome profit—that there must be a great alteration in the dressing-floors, which I pointed out to the captains on the mine.—[This report contained a detailed and elaborate estimate of the materials on the mine, as well as of those required; and after drawing a comparative view of the two, with the amount of returns from ore in sight, showed the possibility of working the adventure to immediate profit; and, coming from a party fully competent to make the estimates, may be deemed a disinterested and satisfactory opinion.]

Devon and Courtney Consols.—A meeting of the committee of management was held on the mine, on Monday, the 26th inst.,—James Wolverston, Esq., in the chair,—when the steam-engine having been reported nearly ready to be put to work, it was resolved, that a plunger lift be forthwith put in, and that the engineer be requested to get everything ready for putting the engine to work on Friday, Nov. 6, when a general meeting of shareholders will be held. —It was also resolved, that Capt. Job be directed to sink pits, with a view of trying the north lode, further east, in order to fix the situation for the permanent shaft; and that he be directed to suspend the present working at the north shaft; and that he be prepared to report the result at a meeting of the committee, to be held at an earlier hour of the same day of the general meeting.—The present prospects of the speculation being considered so peculiarly encouraging, it was resolved, that the most vigorous efforts be made in the prosecution of the mine.

Ellborough Mine (Somerset).—A meeting of adventurers (the majority of whom are enterprising Cornishmen of this locality) was held at Clark's Hotel, Tucking-mill, near Camborne, on Tuesday, the 18th inst. The purser presented a statement of accounts, showing balance in pursers' hands of 8*l.* 10s. 7½d.—when it was resolved, that the foregoing accounts, having been examined and found correct, be allowed and passed; that Capt. Trevithick be requested to call on Mr. Abbott, and use his best endeavours to procure a reduction of the dues to 1-15, and that in the mean time the purser procure from the lord a draft of the deed, to be laid before the adventurers; that this meeting, considering the mine worthy of trial, for that purpose a call of 5s. per share be made, and forthwith collected.—[The report of Capt. Trevithick, which we have not received with the accounts, was, we understand, considered of a very satisfactory and encouraging nature, and, although the shareholders fully anticipated that the returns would have met the costs, there is very little doubt but it will do so in a short time; this is borne out by the estimated value of the barytes raised, and not sold in September with the lead.]

South Friendship Wheal Ann.—A meeting of adventurers was held on the mine, on Monday, the 26th inst. The reports of the different captains and agents are highly favourable, as to the progress of the works, both in sinking the shafts, and the rapid and substantial manner in which the machinery for working this mine is in course of erection, under the superintendence of experienced engineers. The great water-wheel (second only to that of the Great Wheal Friendship), was stated to be in a forward state, the wheel pit excavated, and it was expected it would be at work by the end of the year.—[We have not received the agents' reports, &c., but expect to have them in time for our next Number.]

South Wheal Maria.—At a meeting of adventurers, held at Gunnis Lake, Calstock, on Tuesday, the 20th inst., it was resolved, that the accounts, showing five months' cost, from April to August, amounting to 250*l.* 11s. 10d., be approved—that notice be given to those shareholders in arrear of call, that unless the same is paid, on or before the 10th Nov. next, the purser is instructed to sue them through some merchant—that the meeting is satisfied with the machinery, and the purser to pay the contractors the balance of the same—that the engine-shaft be sunk 20 fms. below adit, and that a cross-cut be driven at that depth, to intersect the two lodes north of the shaft—that Messrs. Sargeant, Syms, Clymo, Bryant, Stephens, and Wilkes, with the purser, do form a managing committee; three to be a quorum—that a call of 10s. per share be made, 5s. to be paid immediately, and 5s. on or before the 24th December—that the purser be empowered to overdraw, from the Tavistock bank, in case of emergency, not exceeding 100*l.* for the mine—that the purser do purchase necessary furniture for the captain's room—and that the next meeting be held at the expiration of two months.—*Note, by Capt. J. Seccombe:* "There being 180*l.* more due to the contractors, I request the prompt payment of the first instalment of 5s. per share, the money being immediately wanted; and I assure the company, that no effort shall be wanting on my part, to at once enforce, by legal measures, the payment of cost due from the few in arrear, in conformity with the resolution of the meeting."

West United Hills.—A meeting of shareholders was held at the mine, on Thursday, the 22d inst.—H. Ellery, Esq., in the chair.—From the statement of accounts presented, the purser showed a balance against the mine, of about 192*l.*, to meet which, and carry on the future operations of the mine, a call of 25s. per 256th share was made.—Capt. J. Lean, having been requested to inspect the mine, reported most favourably of the sett, and recommended the north cross-cut to be continued; the western end, on course of the lode, is to be discontinued for the winter, and the eastern end on course of the lode to be resumed. There being a cross-course from 50 fms. to 60 fms. further east than the present workings, against which several mines to the south have been productive, it was considered most prudent to extend the eastern end, with a view of seeking the influence of this lode at the junction.

Wheal Anderton Mine.—At a meeting of adventurers, held at the Royal Hotel, Plymouth, on the 22nd inst.—Capt. J. Tony, R.M., in the chair,—it was resolved, that the relinquishments of shares from the several shareholders, as specified in the Cost-Book, amounting to 69 shares, out of the 306, be accepted by the company; that Mr. J. Paull, with Capt. Carpenter, value the materials immediately; that the engine-shaft be sunk 10 fms. deeper, at the earliest possible period; and that a call of 2*l.* per share be now made, in order to carry out the above resolution and other works of the mine, as follows: 20s. per share to be paid to Capt. Carpenter, by the 1st of November ensuing, and the second instalment of 20s. per share to be paid by the 1st December.

Wheal Mary Ann.—At a special meeting of adventurers, held at the Packhorse Inn, St. Blazey, on the 19th inst.—Mr. Medland, in the chair,—it was resolved, that the present level be extended 3 fms. further east, and unless a lode be cut at, or previous to, that extent of driving, that cross-cut to be abandoned, and then commence to drive north on the large branch that was last cut in the present level; that a further call of 5s. per share be made forthwith, and paid to Mr. T. Thomas, the purser, for the prosecution of the above resolution; and, that a meeting of the adventurers be held on Monday, the 14th December next, at the Cornish Arms, St. Blazey, at 4 o'clock P.M., for the purpose of transacting the general business of the mines.

Wheal Trelawney.—The two-monthly general meeting of shareholders was held at Liskeard, on Tuesday, the 27th inst., when a statement of accounts was exhibited, showing amount of July costs, 669*l.* 4s. 8d.; August, 685*l.* 7d. = 1354*l.* 5s. 3d.; add balance against the company at last meeting, 320*l.* 1d., making total of 1674*l.* 5s. 4d.—By lead ores sold, the 30th of September, to Tamar Smelting Company, 1442*l.* 8s. 7d., leaving balance against the company of 231*l.* 16s. 9d.—The accounts were agreed to, and the balance ordered to be carried to the debit of next account.—The following report, from Capt. Peter Clymo, was read to the meeting:—We are daily expecting to cut the lode at the 42 fm. level. The lode in the 32 fm. level south is 2 ft. wide, and worth 16*l.* per fm.; this level is driven on the lode in this direction about 27 fms. from the engine-shaft; the lode in the same level north is 4 ft. wide, and worth 18*l.* per fm.—the level is driven in this direction on the lode about 30 fms. The lode in the 22 fm. level north is 3 ft. wide, and worth 15*l.* per fm. The lode in the 12 fm. level is 3 ft. wide, and worth 12*l.* per fm.; the stopes, generally throughout the mine, are looking well. We calculate that our next sampling will be 115 tons. Trelawney's, or the new engine-shaft, is 23 fms. below the surface. The new engine-house is up, and the roof on; and the engineer will commence heaving in the engine next week, and we expect to get her to work by the end of the present year.—*Oct.* 26: P.S.—Since the above, we have cut the lode at the 42 fm. level, and find it 3 ft. wide, with an excellent course of lead.

Wheal Prospect.—A meeting of shareholders was recently held on the mine, when it was resolved that two efficient mining agents should inspect and report upon the mine. Capt. R. Dunstan, of West Caradon, and John Morcom, of Bodmin, having been authorised, have furnished these reports.—*Capt. R. Dunstan:* At your request, I now furnish you with the following short report, the result of my inspection of Wheal Prosper Mine. Weary's lode is very kindly, carrying a leader of ore, worth, in some parts, 50s. per fm., underlaying north 2 ft. in a fathom, which is a moderate underlay, and located in a beautiful rich kilas, with north branches, or feeders, dropping into the lode, which indicates ore in depth. There are several other good lodes in the sett, which have only been partially explored. The sett is bounded on the east and north by a granite hill; the junction of granite and killas is formed just at the eastern boundary of the sett. The western hill, into which the mine very extensively extends, is composed of a beautifully rich killas, with an elvan dyke, running through it. In the lane leading from millpool to the turnpike-road, may be seen the effects of the oxide of iron exuding undoubtedly from the mineral substances below, and is an important feature in favour of the mine; thus, taking the whole of the circumstances into account, I cannot but consider the prospects of the mine highly worthy the attention of the mining capitalist.—The annexed is the report of *Capt. John Morcom:* I now beg to hand you the report of my inspection of your mine. This mine is now worked by the aid of a new steam-engine, of sufficient power to drain the water at a great depth below the present level. There is an engine-shaft sunk to the 15 fm. level, where you have driven north and south to intersect the lodes. There is a cross-cut driven south 27 fms.; in this distance, there are two distinct lodes—the first is 5 fms. south of the shaft, which you call Weary's lode; this lode is about 3 ft. wide, and underlies north about 2 ft. in a fm.; the south part is composed of spar, mundic, and good yellow copper ore, of a superior quality; the north part is

composed of spar, peach, mundic, and ore, with a very promising appearance. This lode is driven on about 22 fms. west and 5 fms. east. The south lode, which you call the caunter lode, or cross-course, is about 15 in. wide, and composed of spar; I think you have driven through it in the west end, and have dismantled the lode. I will advise you to drive north 2 or 3 fms., to see where the north part is hove with this cross-course. We have also driven a cross-cut north about 36 fms.; in this cross-cut you cut two lodes, and a large elvan course, about 7 fms. wide; the two lodes are about 7 fms. apart, and both underlay north—the first lode is about 2 ft. wide, composed of flookan, prian, spar, mundic, and copper ore, with a promising appearance, and near a north elvan course—the north side of it is driven on 3½ fms.; the second lode is 7 fms. north of the last-mentioned lode, underlies north 2 ft. in a fathom, 18 in. wide, composed of mundic, spar, and copper ore, and is not explored more than 3 ft.; the shaft is now about 5 fms. below the 15 fms. level, with the elvan course in it. The ground is very favourable for sinking, and 7*l.* 15*s.* per fm. a fair price; if the ground continues as it is, they will get down the 12 fms. in two months, where it will take the lode, if it continues its regular course; the lode will take the elvan course before it reaches that level; I think this elvan course will make a great improvement on the lode. There is another lode 120 fms. south of the engine-shaft, which is driven on about 40 fms. west; this lode varies in size from 1 ft. to 5 ft. wide, composed of capel and peach, with a very promising appearance. I should recommend you to put two men in this end, as the air will not admit of a large number. In taking a view of the whole mine, and the number of lodes already discovered, in a beautifully rich killas, and so near the granite, east and north, and the elvan course so near the lodes, there is every reason to expect a good mine here.—Since the date of these reports, we understand that the elvan course had left the shaft, and gone towards the lode, and the men down on a soft granite; this, together with other indications in the shaft, even warrant to the shareholders a good course of ore in depth.

MINING DISCOVERY AT ST. IVES.—Mr. H. St. Aubyn, C.E., St. Ives, has recently opened one of the most promising tin mines discovered in Cornwall for many years. This mine is situated on the property of Mr. S. Richards, in the parish of St. Ives. The tin is of a very superior quality—the course is from east to west—and there is another lode, nearly parallel, congenial for copper. The workings at present are from 7 to 8 fms. from grass.—*Penzance Gazette.*

SWAN-POOL LEAD MINE.—A prospectus has been issued at Falmouth, for the formation of a company to resume the working of this sett. A steam-engine is proposed to be placed on the mine, from the want of which the former operations are said to have been discontinued.

NEWBRIDGE AND TAFF VALE COLLIERY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The projectors of this company ought to feel under great obligation to your correspondent, "A Coal Merchant," for his remarks on the prospectus for forming this company. The only points on which he assails the particulars of the cost of working this coal, are in that for raising the coal, which he states at 1*s.* 10*d.* instead of 1*s.* 7*d.*, and in the agency and incidental charges at 2½*d.* per ton. Assuming the price to be 1*s.* 10*d.* per ton for getting the coal, that is more than counterbalanced by the low price at which the coal is estimated—viz.: 8*s.* 6*d.* per ton—the present price at Cardiff being 9*s.*; and with regard to the agency, and incidental charges, your correspondent appears to have overlooked the charge of 3*d.* per ton for extra expenses—this, added to 2½*d.* for agency, gives 5½*d.* per ton, which, on 200 tons per day, amounts to upwards of 1800*l.* annually—a sum amply sufficient for mining—engineers, pursers, shipping agents, and wharfage. It is true, as observed, that Mr. Coffin's coal is more than three miles from the spot where it is proposed to sink the pit on the land referred to in the prospectus, but not from the boundary of the estate; but the vein which runs under Mr. Coffin's property, is now worked by Mr. Calvert, on the Rev. G. Thomas's property, and also by Mr. Edmunds on other land, both of which collieries are contiguous to, and within a very short distance of, the coal comprised in this lease. The existence of the veins under this land your correspondent does not seem to doubt: the fact of Mr. Coffin's coal being more than three miles distant from this, which adjoins the railway, gives an advantage of at least 3*d.* per ton for carriage in favour of the present undertaking. The capital required is 20,000*l.* for opening one pit, and working 200 tons per day—on which a return is calculated of 7500*l.* per annum. If the colliery is more extensively worked, so as to produce the increased return, it is sufficiently apparent from the prospectus that the capital must be increased in a similar proportion. No one who is acquainted with Mr. Coffin, can fail to estimate his perseverance and talents, which richly entitle him to the handsome return he is now realising from his colliery. Without any desire to injure him, or any of the other coal merchants, this should be an inducement to others to persevere so as to reap the same benefits; and we are sure, that the daily increasing demand for this description of coal, both in this kingdom and the different nations on the continent, will open a sufficient field for the employment of capital, with every prospect of advantage to those who are willing to embark in any project of this nature. ROBERTS, CARTER, AND CO.

Portman-street, Portman-square, Oct. 29.

NEWBRIDGE AND TAFF VALE COLLIERY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I observe, in your columns of the 24th inst., an attack made on the above-named company by "A Coal Merchant," at Newbridge—a very proper person, certainly, to discuss this matter; but, in truth, his attempt to injure the company is a very lame affair altogether, and, if properly considered, will do more in bringing the colliery into quick working than he intended. He endeavours to show that 6*s.* per ton is too low a price for production, carriage, &c., but fails in the attempt; he says nothing about 8*s.* 6*d.* per ton being a very low selling price. This colliery would still be a very good investment, if the profits were less than half the lowest amount stated in the prospectus—namely, 7500*l.* In conclusion, I have only to remark on the very feeling manner in which your correspondent at Newbridge concludes his letter, stating "the profits on colliery operations are very small—alas! in too many instances, none at all." Now, it is well known, large fortunes have been, and still larger are now, obtained from collieries; and if there be some concerns which do not pay immense interest on the outlay, it is frequently because some unprincipled monopolist prevents their efficient working, by crying down, for his own advantage, those projects which interfere with his practices; and not always from the causes alleged—namely: "high royalties, high wages to workmen, deep pits, great quantities of water to contend with, as well as inflammable gases," none of which apply to this colliery. There is something very suspicious in "A Coal Merchant," at Newbridge, writing against a new company in his own neighbourhood, and he must be, from some interested motive, other than the protection of the investing public, endeavouring to injure this colliery, which will, on its own merits, stand the test of public inspection, and realize to the shareholders a handsome return for their outlay.—A SHAREHOLDER: *Oct.* 29.

MINE QUOTATIONS—SHARE LIST.

SIR,—As a regular subscriber to your paper for some considerable time, I find great cause to complain of your list of prices of mining shares. It is obvious the only use of such a list is to give *information* to those who cannot otherwise conveniently procure it; but so far from *informing*, your list is calculated only to *mislead*. For instance, I may mention, that you quote the Mexican Company's shares at 5*l.*, when it has been notorious for months past they would not fetch 5*s.*—being a holder, I know this from experience. A few days ago, having heard very favourable accounts of Wheal Seton and West United Hills, and finding the former marked in your paper at 835*l.*, and the latter at 3*l.*, I was not a little surprised when I found that I could *not obtain* Wheal Seton at 900*l.*, nor West United Hills at less than 12*l.*, at which I actually bought; and yet in to-day's paper I find them marked by you at 2½*l.* Surely, it is much better, when you do not know the actual prices, to leave them blank; you then deceive no one; but to insert false prices is calculated to deceive and mislead, and may obviously assist the designing and knavish, in cheating those who are inexperienced—a thing, I am quite sure, very far from your intention.

New Bond-street, Oct. 24. JAMES NICHOLSON.

[Since the receipt of the above communication, we have made every inquiry, and assure Mr. J. Nicholson, we can find a party who would have supplied him with West United Hills shares at the price quoted: there has since been a call of 25*s.* per share, and they are now to be obtained at our present quotation. This will also reply to Mr. P. Raby's letter of the 29th inst. We feel obliged for all communications of this description, as we are anxious to make the list as correct as possible; but our correspondents should bear in mind, there are always two extreme points in the range of share prices—that of those who wish to buy, and those who are anxious to sell. With respect to the other shares named we refer to the list.]

[ADVERTISEMENT.]

RAILWAYS IN SPAIN—THE PORTS OF THE ASTURIAS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I am proud and happy in saying, that I have already received respectable and friendly marks of approbation and thanks; I am, therefore, encouraged in my humble endeavours of exposing, to full view, all circumstances connected with Aviles and its proposed railway. Let it be understood, that I ask no more than an entire investigation of all the circumstances; and I beg that the information may be obtained through men of true honour and true talent. Mr. Editor, can it be denied, that known honour and known talent are not imperatively required—after looking at the FALSEHOOD, the IGNORANCE, the TRICKERY, which brought about the Royal North of Spain Railway? Falsehoods on falsehoods were sent forth—

"In turns to deceive and make the initiate stare,
Till the swollen bubble broke, and all was air."

The jobber, whether Englishman or Spaniard, is alike indifferent as to where a railway comes from, or where it goes to; the only questions with such men are—*Query*, if I take or buy, what chance is there of selling at a profit? but, Mr. Editor, there are gentlemen connected with the Aviles Railway who calculate on its being a safe investment, in a twofold point of view, as a means of carrying on their trade in coal and iron, and as a safe railway investment of their capital. I have the honour and pleasure of knowing many of these gentlemen—and I gladly convey to them and the public my humble notions on those important inquiries; and I sincerely thank you for giving me the opportunity in your paper. Some time since I read in the *Mining Journal* an excellent letter on the Victoria Iron-Works; and I recollect in it an apt quotation, which I now give to those whom I wish well, as connected with trade and rails in the Asturias:—

"Ah, me! what perils doth environ
The man that meddles with *hot* iron!"

And it seems to me that there is here a twofold danger in meddling. I would, therefore, say—* * * * What ports have we in the Asturias? and what ports can we have? how are we to improve the former? and what cost and time are required for the latter? These are questions of deep interest to the English collier, ironmaster, and shipowner; I am, therefore, anxious that considerations so important should be got at by men who are well known for talent and honour: as soon as I find such men in the field, you will not again hear from

Yours, truly, NOAH COWARD.

Gijon, Asturias, Spain, Oct. 12.

ROBBERIES IN MINES IN CORNWALL.—At the Cornwall general quarter sessions, held at Bodmin last week, a series of cases were tried, which exposed a complete organized system of plundering mines. The prisoners were chiefly convicted through the agency of a man named Moyle, who was admitted an approver. It appeared that four or five months ago several valuable mining implements, composed chiefly of brass, were missing from various mines in the western parts of the county; and, in consequence of some suspicions, this man's house was searched, and a large quantity of the article found concealed in a cavity up the chimney. Moyle is a dealer in marine stores, and lives at Redruth; on being taken before the magistrate, he consented to confess, and become an approver, on condition of receiving a pardon. He then acknowledged himself an extensive receiver and buyer of brass and other metal from different miners, and in consequence of that information several parties were taken up and convicted. The depredations appear to have been carried on to a considerable extent. William Prince and Joseph Prince, two miners, were convicted of stealing at Wheal Unity Wood Mine, in the parish of Kenwyn, a brass air pump bucket, 1000 lbs. weight of brass, and 50 pieces of brass. The prisoners, on the night of the 24th July last, broke open the door of the engine-house in which these articles were kept, and removed them into a lane near the mine. They then went and informed Moyle they had some brass to sell; and the prisoners, in company with Moyle, and another dealer in marine stores, named Hooper, went with a cart and brought the brass home to Moyle's house, and kindled a strong fire under it, and broke it in pieces to avoid detection. Several other cases of a similar character, from the Wheal Jewel and other mines, were heard, the prisoners being sentenced according to the aggravation of their cases either to transportation or imprisonment with hard labour.

BLACKBAND IRONSTONE.—On a property, in the neighbourhood of St. Andrews, being examined, by an eminent mining engineer, he has discovered an extensive field of blackband, of first-rate quality.—*Glasgow Mercury.*

ZINC.—Most of the zinc works in this country are situated in the neighbourhood of Birmingham and Bristol; a few furnaces also exist in the neighbourhood of Sheffield, among the coal-pits surrounding that town; there is also one at Maesteg, in Glamorganshire. The ores worked at Bristol and Birmingham are principally obtained from the Mendip-hills and Flintshire; those at Sheffield from Alston Moor. The greater part, however, of the zinc used in this country is imported in ingots and plates, from Silesia, by way of Hamburg, Antwerp, Dantzic, &c. We receive annually from 100,000 to 170,000 cwts. from Germany; of this quantity, about 80,000 cwts. are entered for home consumption, and the rest is exported for India. From its moderate price and the ease with which it can be worked, zinc is now extensively used for making water-cisterns, baths, pipes, covering of roofs, and a great many architectural purposes. It has also of late been employed in the curious art of transferring printing, known under the name of *Zincography*; but, owing to the ease with which this metal becomes coated with a film of oxide or carbonate, by exposure to the air, the plates cannot be preserved for any great length of time.—*Beckmann's History of Inventions, Discoveries, and Origins.*

MINE ACCIDENTS.

Kingswinford.—W. Higgs was killed at Mr. Chavasse's Colliery, by a fall of coal.—J. Rowley fell 140 yards down the shaft of Messrs. Blackwell and Co.'s pit, and was killed on the spot.

Wednesfield Heath.—As E. Riley, and three other miners, were being drawn up the shaft of Mr. Williams's pit, the rope broke, precipitating them to the bottom of the shaft—Riley died on Sunday morning, and the others are much injured; though the rope had only been in use a week, it had broken three times.

Bilston—Awful Explosion.—Another of those devastating casualties, which cause so much misery in the mining districts, took place at Mr. North's coal-field, on Wednesday week last. Seven men and boys got into the skip to descend to their work, and, when about 90 ft. down, a shrill cry of agony was heard by those at surface, and instantly a vast body of flame rushed up the shaft, and to a height of 50 ft. above, with a roaring noise like a burst of artillery: the engine was immediately reversed, and the skip drawn up, when it was found that two had fallen out, and the five who remained, presented an awful spectacle—their hair singed off, their skin blistered and cracked, their clothes in rags, and dropped off at a touch—in fact, after being drawn 90 ft. through a flame of fire, which filled the shaft, they were so black and burned, that they could not be recognised. On the miners refusing to descend, Mr. North (the proprietor) proposed to go himself, when three of the men expressed their intention to go instead, and T. Roden and W. Henslow were found dead, and in too shocking a state to be described.

West Bromwich.—A dreadful accident happened at the colliery of Messrs. Philip Williams and Co., whereby four men (J. Harvey, T. Harpwood, B. Cashmore, and D. Moss) lost their lives; they were at work, and joking with a man named Pearson, who had charge of a horse drawing a skip. Pearson, who had left for a moment, heard a stifled shriek, and looking round, his companions had vanished, and the level where they stood was filled up with a solid mass of coal, which had fallen from the roof. In about three hours they were got out, but dreadfully crushed, and the poor horse was absolutely flattened—Pearson had a narrow escape.

Cramlington Low Colliery.—M. Gray was crushed by a fall of coal.

Percy Main Colliery.—W. Porteous was killed while at his work.

Frightful Accident.—Shortly before going to press a letter came to hand, duly authenticated, informing us that a melancholy accident had occurred yesterday morning at Woodthorpe, at the pit of Mr. Rhodes. It appears that, while two of the workmen, who had gotten into a corve and were descending to the mine, with the view of beginning the labours of the day, the rope which suspended the basket suddenly broke, and the unfortunate men were precipitated to the bottom, where they were dashed to pieces.—*Sheffield Iris.*

The first railway to be constructed in Sweden is to run from the iron mines of Gelliwara, in Lapland, to the port of Tonnefors, and will be 32 French leagues in length. These mines are the richest in Sweden, but the produce is of comparatively little value, from the difficulty which exists in carrying it to the sea. It is an English company which has undertaken the line in question, and the works are to commence in the course of next spring.

NEW PROCESS FOR REFINING OILS AND FAT.—Mr. P. Bancroft, of Liverpool, has secured a patent for purifying and refining animal and vegetable oils and fats, whereby they are better suited for lubricating machinery, also for sweetening inferior descriptions of lard, and rendering them fit for human food. The vegetable oils which he proposes to refine, are Olive, Gallipoli, Spanish, Portugal, Sicily, and such like qualities of Olive oils; these oils, when applied in an impure state to machinery, become glutinous, act injuriously on the brass work, and impede the proper working of the machine. To remove these impurities, the oil, when heated to about 90°, is heated with a strong solution of potash or soda, either in the state of a carbonate, or made caustic by lime—the latter is preferred as producing less effervescence, and the operation being more quickly finished, the specific gravity of the alkaline solution should be 1·2 or stronger; while the alkali is added, the oil is kept in a constant state of agitation to cause a thorough mixing. In order to ascertain when the operation is completed, a little is put into a glass bottle, and a solution of the alkali added to excess, and should the alkali settle quite clear, it is well refined—if not, more alkali must be added to the oil under operation, until, on further test, such effect takes; the oil then stands 24 hours, and is drawn off and filtered. It is said, that oil thus prepared will not tarnish the finest brass, nor become glutinous, by exposure to the air. The oil expressed from lard is operated on in precisely the same manner. For the refining of tallow, sweet English tallow, or that termed Y. C. (yellow colour) must be used, the tallow is melted by steam, and the alkali stirred continually with it, until it reaches a temperature of 200°, after which it is allowed to rest for 24 hours. The process of refining lard is, first, to separate a portion of the oil by pressure; the lard is then melted, the alkali added with constant agitation, and run off after 24 hours. The matter precipitated in all these processes may be used in the manufacture of soap, or an inferior grease may be obtained by treating the mixture with sulphuric acid diluted with water, and thus neutralising the alkali.

NEW PATENTS AND REGISTRATIONS.

Extracts from the Mechanics' Magazine Weekly List of English Patents:—

H. Mapple, Child's Hill, Hendon, Middlesex, for improvements in apparatus for transmitting electricity between distant places, and in electric telegraphs.

W. Reid, St. Pancras, Middlesex, engineer, for improvements in the manufacture of wire.

J. Gray, Redeross-street, Southwark, machinist, for improvements in gas meters.

R. Heath, gent., Heathfield, Lancaster, for certain improvements in the construction of wheels, axles, and bearings, to be used upon rail and other roads, which improvements are also applicable to mill gearing and other purposes.

P. A. L. Fontainemoreau, New Broad-street, London, for certain improvements in producing artificial fuel. (Being a communication from abroad.)

J. Condie, Glasgow, engineer, for improvements in machinery used in manufacturing malleable iron.

J. Taylor, gent., Adelphi, Middlesex, for certain improvements in the manufacture of explosive compounds. (Being a communication from abroad.)

LITERARY NOTICES.

Observations on the Ventilation of Mines, with a Description of the Mine Ventilator, invented by W. Strutt, C.E., Swansea. London: John Weale, High Holborn; *Mining Journal* Office, 26, Fleet-street; and *Cambrian* Office, Swansea.

In the *Mining Journal* of June the 6th last, we gave a description of Mr. Strutt's plan for Ventilating Mines, for which a patent has been secured; and we have now before us a pamphlet on the subject. The author, commencing by alluding to the difficulties which exist in the present extensive workings of our coal mines, and the total incapacity of the furnace method to give any thing like the required ventillation, while the injuries it inflicts in the destruction of chains, brattices, &c., amounts to hundreds of pounds annually to a single colliery; and, while one of average good quality, for a large colliery, will consume as much coal as a 60-horse power engine, its mechanical effect is considerably below 1-horse power; he then describes the "Mine Ventilator," which, as we have before stated, consists of a large manometer, or pair of gasometers, working over the upcast shaft, and converting the whole of the air passages, as well as the upcast pit, into the suction pipe for this huge pumping apparatus. The exterior cylinder may be constructed of masonry, or wood work, and the upper portions of light tin-plates or planks, or framework, with glass; it is supplied with inlet and outlet valves, framed of tin-plate, or other light material, lined with leather, and so contrived as to present, when open, a sectional aperture as large as the pit: the upcast pit is closed, and connected with the apparatus, with tunnels, or tubing, which arrangement will not interfere with the pumping of water, or raising of coal. Neither barometrical or thermometrical changes can affect the operation of this apparatus; and the quantity of air drawn through the mine can be ascertained with as much accuracy as the quantity of water raised by a pump. One very great advantage of the use of this machine is, that, by closing the downcast shaft, and by applying sufficient power to effect slight exhaustions of the mine during the cessations of work, the gnaves of a colliery may be cleared of their obnoxious gases; so that, on a Monday morning, which, under the system of furnace ventilation, proves the most dangerous day of the week, the workmen will find the mine in a wholesome and safe condition. A few hundred weights of coal will produce the power requisite, which may be derived from a small high-pressure engine, or from the engine of the colliery. The wages of the fireman, and the coal of the furnace, will be saved—the damage to pit chains, brattices, and ironwork prevented, and a vast relief to the men and horses—ascending and descending, as they now do, through a current of vitiated air—effected. The following is the calculation of the power required to work this machine,—

Diam. of piston in ft.	*Cub. ft. of air thro' 50 ft. superf. per min.*	*Horse-power.*
5	7,852	·003
10	31,416	·3
15	70,680	2·75
20	125,664	16·0

The power will diminish as the openings increase, in the inverse ratio of the squares of the areas of these openings; so that only half the above power, in proportion, would be required for an opening of double the area. The pamphlet is illustrated by diagrams, and the plan appears to be simple—suggested on truly scientific principles—of great power—and worthy a trial, on a good working scale.

Tables for Facilitating the Calculation of Earthwork in the Cuttings and Embankments of Railways, Canals, and other Public Works. By Sir JOHN MACNEILL, LL.D., F.R.S., M.R.I.A., Professor of Practical Engineering, Trinity College, Dublin. Dublin: Hodges and Smith.

The past few years have made a change in the very nature, as well as practice, of civil engineering, as extraordinary as it has been rapid and extensive. In former times the promoters of great public works had ample time for calculation, and for studying the most minute details of every portion of the undertaking—not only before they were commenced, but as they proceeded: not so in the present day—from the rapid progress in the development of the railway system, such a flood of employment has poure l in upon the engineering world, and so short has been the period allowed for properly setting out the works, and calculating their minutiæ as to cost, &c., that the grossest errors have been committed, and many a good project has been lost in consequence, when before Parliament. The calculations of the quantity of earthworks is one of the principal difficulties; and the author truly observes, in his Preface—"All practical engineers are well aware, by experience, of the inconveniences which arise from the length of time necessary for calculating the cubic quantity of earthwork in the cuttings and embankments of canals, railways, turnpike-roads, and other public works, especially when the section is of considerable extent, and the ground uneven. As calculations of this kind are frequently, on a short notice, required to be completed within a limited period, the consequence is, that errors are almost sure to be made, as a multiplicity of figures are necessary, though the calculations in themselves are simple." The object of the author, in the tables before us, is, to save time and secure accuracy; and there is no doubt, from the use of them, many errors will be avoided—much more certainty and confidence felt in making contracts—and works in general proceed with more regularity and perfection. The work is printed on tinted paper, rendering the multiplicity of figures distinct and clear; the instructions are illustrated with copperplate diagrams, and the work will be hailed by practical men as a great relief to the most tedious of their labours, while they are enabled to rely on the accuracy of the results.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Bank Stock, 7 per Cent., 204	Belgian Bonds, 4½ per Cent., 97
3 per Cent. Reduced Ann., 93	Dutch, 2½ per Cent., 58¾ 9
3 per Cent. Consols Ann., 94¼	Brazilian, 5 per Cents., 85
3 per Cent. Annuities, 94¼	Chilian, 6 per Cents., —
3½ per Cent. Ann., 95	Mexican, 5 per Cents., 22
Long Annuities, 9¾	Spanish, 5 per Cents., 25¾
India Stock, 10½ per Cent., 256 7	Ditto Deferred, 17½
3 per Cent. Consols for Acc., 94⅝	Portuguese, 5 per Cents., 85½
Exchequer Bills, 1000*l.*, 8 11 pm.	Russian, 5 per Cents., —

MINES.—We noticed, in last week's *Mining Journal*, the pleasing improvement which had taken place in the share market, and are glad to be able to state, that the activity then displayed has been supported during the past week. A considerable amount of business has been done in shares in our home mines; and shares in promising adventures are looking up. The following have been the principal transactions:—Callington, Condurrow, Cubert, Devon and Courtney, East Tamar, Harrowbarrow, Herodsfoot, Lamheroe, Lewis, North Roskear, South Trelawney, Stray Park, Tincroft, Tokenbury, Trethellan, West Seton, West Wheal Jewel, Concord, Louisa, Norris, Wheal Trelawney, Wheal Walter, Crowndale, Fortescue, Rough Tor, and Franco.

RAILWAYS.—There was evidently, in the forepart of the week, a better feeling, and more confidence evinced in the share market, and in many instances higher prices were obtained accordingly: this state of things continued until Thursday, when, after a good show of business, a revulsion suddenly took place, in consequence of a sudden fall in the funds, which threw the market into a good deal of excitement and agitation: the unsettled state of Portuguese affairs is said to have been the cause of this untoward movement, the threatened march of a Spanish army into that country, and the exertions making in various of the royal ports and docks in fitting out vessels for the particular service of the Peninsular ports.

MEETINGS.—*Coventry, Nuneaton, Leicester, and Birmingham:* to inform the shareholders that the directors had ceded the railway to the North Western Company, and to obtain permission to go to Parliament for a bill to complete the transfer.—*Great Western and Wycombe:* first meeting, from the report, it appeared the amount of deposits was 12,251*l.* 11*s.* 3*d.*; and expenses and liabilities, 14,527*l.* 16*s.*—*Shrewsbury and Chester:* first meeting; the total expenses had been 253,028*l.*; and there was a balance at bankers of 2843*l.*—*York and North Midland:* special meeting; to raise further capital, which will make 4,721,250*l.*, and 306 miles under their control.—*York and Newcastle:* special meeting; for like purpose.—*South Union and Birmingham:* under Dissolution Act; unanimous for dissolution.—*Midland:* a special meeting; for considering the propriety of increasing the capital of the company; it was agreed to raise 3,157,000*l.*—making the whole of their capital 11,000,000*l.*—*East Coast Railway:* meeting under Lord Dalhousie's Dissolution Act; the receipt had been 20,199*l.* 13*s.* 9*d.*, and the expenditure, 16,621*l.* 4*s.* 8*d.*—leaving a balance of 3578*l.* 9*s.* 6*d.*; there was not sufficient votes present, and the meeting adjourned until Tuesday next.—*Derbyshire, Staffordshire, and Worcestershire Junction, and Direct East and West Junction.*—A shareholders' meeting, held at the Railway Protector Office, 11, Bucklersbury; after an irregular discussion, a committee of five was appointed, to communicate with the directors, to obtain all necessary information as to the affairs of the company.—*Birmingham, Wolverhampton, and Dudley:* first meeting; W. Mathews, Esq., in the chair; the Act of Incorporation received the Royal Assent on the 3d of August last, enabling to contract that portion of the original scheme, extending from Birmingham to the Oxford, Worcester, and Wolverhampton line at Priestfields, near the latter town; the exact amount of expenditure had not been ascertained, but there remained a balance in hand of 59,421*l.*—*Birmingham and Oxford Junction:* first meeting, at which were present Lord Hatherton, Messrs. Russell, Spooner, Muntz, Saunders, Brunel, Mathews, Shaw, and other gentlemen, connected with the Great Western—Mr. P. H. Muntz took the chair: the Act received the Royal assent on the 3d of August last: it is proposed to amalgamate with the Birmingham, Wolverhampton, and Dudley Co.: the receipts had been 100,575*l.* 3*s.* 8*d.*, and expenditure 20,003*l.* 14*s.* 4*d.*—leaving balance in hand of 77,571*l.* 9*s.* 4*d.*: it is proposed to lay down a double gauge.

LEEDS, FRIDAY.—The share market continues more animated than for some weeks past, and prices are well supported. At the York and North Midland meeting, on Monday, one new 25*l.* share was created to every old share; and at the York and Newcastle meeting 1½ new shares to every 25*l.* share was the proportion given; we have had dealings in the former new stock at 6¾ pm., and in the latter at 3¾ pm. The Midland, yesterday, decided to issue 50*l.* new stock for every 100*l.* of old, and the Bradford guarantee was finally confirmed by a unanimous vote on the lease, as presented in full to the shareholders. There is a large business doing in Leeds and Dewsburys, and Huddersfield and Manchesters, which are likely to be favourably affected by the negociations now going on with the London and North Western Company. Ambergates and North British, it is said, will come under Mr. Hudson's control—by purchase, probably, in the one case, and amalgamation or lease in the other. TOOTAL, BARFF, & PLINT.

HULL, THURSDAY.—The market, on the whole, shows more firmness, although buyers operate cautiously. Nothing can evince the steady character of the trade better, than the fact, that, although the York and North Midland, and York and Newcastle, have made liberal issues of new stock, the prices of old with new are not materially higher. This is an index of the market generally; and is much more satisfactory than feverish alternations of high and low prices.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending Oct. 24, was 15,362; amount of money, £64 14*s.* 10*d.*

RAILWAY SHARE LIST.

RAILWAYS.	Paid	Closing pr. last week.	Closing pr. last night.
Aberdeen	£20	14½	16
Amber, Nottingham, Boston, and Erewash Junction	2½	3½	2½
Armagh, Coleraine, and Portrush—25l. shares	1½		½
Birmingham and Gloucester—100l shares	100	130	129½
Birmingham and Oxford Junction—20l shares	3	6½	7½
Bristol and Exeter—100l shares	75	—	81
Bristol and Gloucester—50l per share	30	50½	50½
Caledonian—50l per share	25	21½	23½
Chester and Holyhead—50l shares	27½	23½	22½
Direct Northern—50l shares	2½	1½	1½
Eastern Counties—25l shares	14½	21½	22
East Lancashire, 25l. shares	14	18½	18
East Lincolnshire	1½	1	½
Edinburgh and Glasgow—50l shares	50	70	74
Edinburgh and Northern	10	10	11½
Edinburgh and Perth	3	1½*	—
Exeter, Yeovil, and Dorchester—50l shares	5½	—	3½
Goole and Doncaster—20l shares	42s	1 dis.	¼ dis.
Grand Union (Nottingham and Lynn)	1½	1½*	—
Great Southern and Western (Ireland)—50l. shares	27½	29½	29½
Great North of England—100l shares	100	237	237
Great Western—100l shares	85	140	138
Guildford, Fareham, and Portsmouth—50l. shares	5	5¼*	—
Hull and Selby—50l shares	50	108	108½
Lancaster and Carlisle—50l shares	45	61½	65
Leeds and Bradford	30	73½	73½
Leeds and Carlisle	2½	1½	—
Leicester and Birmingham—20l shares	22s	¼	—
Leicester and Bedford—20l shares	22s	¼ dis.	¼ dis.
Liverpool, Manchester, and Newcastle Junction	2½	1½	—
London and North Western	stock	198½	199
London and Blackwall ... Av. 16l 13s 4d		9	9½
London and Brighton—50l shares	50	60½	59
London and Croydon ... Av. 13l 15s 9d		22½	21½
London and Greenwich ... Av. 12l 15s 4d		9½	9½
London and South Western ... Av. 41l 6s 10d		70½	70
London and York—50l shares	2½	1½	1½
London, Salisbury, and Yeovil—50l shares	2½	1½	—
Londonderry and Coleraine—50l shares	12½	5½	5½
Lynn and Ely—25l. shares	15	15½	15½
Lynn and Dereham—25l shares	15	14½	14½
Manchester and Leeds—100l shares	82	105½	105
Manchester and Birmingham—40l shares	40	75½	73
Manchester, Buxton, and Matlock—20l shares	42s	½ pm.	½ pm.
Manchester and Southampton	2	1	1
Midland	Stock	138	133½
Ditto Birmingham and Derby	Stock	110½	108½
Newcastle and Berwick—25l shares	20	26	32½
Norfolk	Stock 100l	132½	130
North British—25l shares	25	34½	35½
Northern and Eastern—50l shares	50	—	—
North Kent and Direct Dover—50l shares	2½	1½*	—
North Staffordshire—20l shares	42s	2½ pm.	1½
Oxford, Worcester, and Wolverhampton	12½	6½	6½
Portsmouth Direct—50l shares	3½	4½ pm.	4½
Preston and Wyre—25l shares	25	30½	36
Richmond—20l shares	15	—	—
Scottish Central—25l shares	12½	19½	20½
Scottish Midland—25l shares	12½	10½	11½
Sheffield and Manchester—100l shares	100	—	—
Shrewsbury and Birmingham	3	3	3½
South Devon—50l shares	35	31	—
South Eastern and Dover ... Av. 33l 2s 4d		37½	37½
South Midland—20l shares	42s	26*	—
South Wales—50l shares	5	3½	4
Vale of Neath	2	1½	1
Waterford and Kilkenny	11	5½	—
Welsh Midland	2½	½	—
West Riding Union	42	½ pm.	7½ pm.
Wilts, Somerset, and Weymouth—50l shares	10	3½	—
York and Carlisle	2½	—	½
York and North Midland—50l shares	50	95	97
Ditto Selby—50l shares	40	81	83

FOREIGN RAILWAYS.

	Paid	Closing pr. last week.	Closing pr. last night.
Boulogne and Amiens—20l shares	16	14½	14½
Bordeaux and Toulouse and Cette (Mackenzie)—20l shares	2	—	—
Bordeaux, Toulouse, and Cette (Espalete)—20l. shares	2	—	1
Central of Spain—20l shares	2	—	—
Dutch Rhenish—20l shares	6	5½	5½
East Indian	½	½	½
Great Northern of France (constituted)	5	12½	11½
Great Western Bengal	½	½	½
Jamaica and South Midland Junction—20l shares	1	½	—
Louvaine a la Sambre—20l shares	6	1½	1½
Lyons and Avignon—20l shares	2	1½	—
Luxembourg	4	1½	1½
Namur and Liege—20l shares	8	3½	3½
Orleans and Vierzon—20l shares	10	13½	13½
Orleans and Bordeaux—20l shares	6	8½	7½
Paris and Lyons Constituted	5	5½	5½
Paris and Orleans—20l shares	20	47½	—
Paris and Rouen—20l shares	20	36½	36½
Rouen and Havre—20l shares	20	—	26½
Sambre and Meuse—20l shares	10	5	4½
Strasburg and Basle—14l shares	14	—	—
West Flanders	6	3	3

* Prices obtained from country brokers—no business doing in the London market.

RAILWAY TRAFFIC RETURNS.

From these returns, it will be seen, that the amount of traffic for the last week, on nearly 2760 miles of railway, was 162,797l., thus accounted for:—89,651l. for the conveyance of passengers only, 40,093l. for the carriage of goods, and a remainder of 23,053l. for passengers and goods together, not respectively apportioned; being an increase over the corresponding week of last year of 21,349l.

Name of Railway.	Lgth. Rway.	Present actual cost.	Last Div.	Traffic Returns. 1846	1845
Arbroath and Forfar	15	£142,900	3p.c.	—	£171
Chester and Birkenhead	15	658,293	2½	£482 4 0	760
Dublin and Drogheda	32	699,975	3½	709 14 8	716
Dublin and Kingstown	6	349,736	9	820 2 8	848
Dundee and Arbroath	17	156,324	6	284 0 2	260
Durham and Sunderland	19	302,118	2	652 7 3	733
E. Counties & North. & East.	161	4,746,113	5	9551 6 4	6748
Eastern Union	—	—		428 0 0	—
Edinburgh and Glasgow	46	2,112,136	6	3769 8 11	3157
Glasgow, Paisley, and Ayr	53	1,301,381	7	2414 15 5	2105
Glasgow, Paisley, & Greenock	23	829,427	2	1006 2 10	964
Gravesend and Rochester	7	82,828	—	—	227
Great Western	241	8,885,605	8	18560 10 6	18983
Hartlepool	—	—		—	1150
London and North Western	440½	16,327,526	10	39349 17 10	39064
London and Blackwall	4	1,081,273	1½	885 14 3	875
London & Brighton & South Coast	113	4,670,721	5	8032 19 1	5591
London and South-Western	106	3,648,547	10½	6557 10 9½	7354
Manchester & Leeds	117	4,636,556	8	9152 9 5	7221
Manchester, Bolton, & Bury	10	842,725	5½	—	1000
Midland Company	331	8,831,195	7	18231 17 3	17519
Newcastle and Carlisle	65	1,137,385	5	2325 9 0	1613
Norfolk	59	985,080	5	1478 15 9	1278
North British	72	1,461,195	—	1215 13 11	—
Preston and Wyre	29	432,014	2½	661 16 10	515
Sheffield and Manchester	49	1,633,331	5	1694 18 11	1122
South Devon	15	778,976	—	374 10 1	—
South-Eastern and Dover	120	6,613,535	3½	8426 6 4	7930
Taff Vale	30	690,229	5	1326 5 6	1183
Ulster	25	358,353	5½	767 3 6	702
York and North Midland	162	2,092,979	10	6521 2 0	5169
Northern of France	260	—	4	10634 0 0	—
Orleans and Bordeaux	72	599,040	4	1777 0 0	—
Paris and Orleans	82	2,082,916	9½	2807 0 0	6541
Paris and Rouen	85	1,995,306	8	6940 0 0	6849

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Adair's Main 16 3—Bate's West Hartley 18 6—Chester Main 18—Davison's West Hartley 20 6—Howard's West Hartley 20—Hasting's West Hartley 20 6—Holywell Main 18—Morison's Hartley 17 3—New Tanfield 15—North Percy Hartley 18 6—Old Pontop 14 6—Original Tanfield 14 6—Ord's Redheugh 16—Stewart's Hartley 18 6—Taylor's West Hartley 18 6—Tanfield Moor 17—West Wylam 17—Wylam 17—Eden Main 20—Cowpen Hartley 20 6—Derwentwater Hartley 19—West Hartley Netherton 19 6—Wall's End Acorn Close 19—Bewicke and Co. 19 6—Brown's unscreened 14 6—Gosforth 19 6—Heaton 19 6—Hilda 19—Horton 19—Killingworth 19—Northumberland 19—Riddell's 19 3—Richardson 18 3—Wharncliffe 19 6—Belmont 20—Braddyll's Hetton 20 6—East Hetton 19—Finchale 19—Haswell 21—Hetton 20 9—Lambton 20 9—Richmond 19 6—Russell's Hetton 20 6—Shotton 20 3—Stewart's 20 9—Wearmouth 20 3—Whitwell 19—Caradoc 20 3—Howden 19—Hartlepool 21—Heugh Hall 19 3—Hudson's Hartlepool 21—Kelloe 20 6—South Kelloe 20—St. Cuthbert's Cassop 19 3—Thornley 19 6—Adelaide Tees 20 6—Barritt 19 3—Cowndon Tees 19 3—Gordon 18 6—Richardson's Tees 18 3—Seymour Tees 19 6—South Durham 19 3—Tees 20 9—West Hetton 19—Wentworth 17 5.—Ships at market, 230; sold, 202; unsold, 28.

WEDNESDAY.—Bates's West Hartley 19—Carr's Hartley 20 6—Chester Main 18—Hasting's Hartley 20 6—Holywell Main 18—Londonderry Hartley 18—New Tanfield 15 6—North Percy Hartley 19—Old Pontop 14 6—Ord's Redheugh 16—Ravensworth's West Hartley 19 6—Ravensworth's Pelaw 15 9—Stewart's Hartley 18—Twizell Main 14 6—Wylam 17—Wall's End Bell and Brown 19 6—Bewicke and Co. 19 6—Brown's 18—Brown's unscreened 15—Gosforth 19 6—Heaton 19 6—Hebburn 19—Harton 19—Killingworth 19 3—Pearson's 18 6—Riddell's 19 6—Willington 19—Wharncliffe 19 6—Eden Main 20 to 20 3—Braddyll's Hetton 20 9—East Hetton 19 3—Haswell 21 6—Hetton 21 3—Lambton 21—Russell's Hetton 21—Shotton 20 6—Stewart's 21 3—Wearmouth 20 9—Whitwell 19 3—Caradoc 20 9—Cassop 20 9—Hudson's Hartlepool 21—Kelloe 20 9—Ludworth 20 6—Adelaide Tees 20 9—Brown's Deanery 19 6—Gordon 18 6—South Durham 19 6—Tees 21 3—West Cornforth 19 6—West Tees 19—Sidney's Hartley 20.—Ships as market, 135.

FRIDAY.—Bate's West Hartley 19—Buddle's West Hartley 20—Chester Main 18 3—Fenham Hartley 16—Grace's Hartley 17 6—Holywell Main 18 6—Nelson's West Hartley 20—New Tanfield 15 6—North Percy Hartley 19—Ord's Redheugh 16—Townley 17—West Hartley 20—Walbottle Hartley 18 6—Wylam 17 3—Wall's End Acorn Close 19 9—Heaton 19 9—Hilda 19 3—Hedley's Beamish 18—Killingworth 19 6—Northumberland 19—Pearson 18 6—Riddell's 19 3—Willington 19—Wharncliffe 19 6—Belmont 20—Braddyll's Hetton 21 3—East Hetton 19 9—Finchale 19 6—Haswell 21 6—Hetton 21 3—Lambton 21—Lumley 20—Pemberton 19 6—Russell's Hetton 21—Ludworth 21—Thornley 20—Gordon 19—Seymour Tees 20—West Tees 19—Howard's West Hartley Netherton 20.—Ships at market, 74; sold, 55; unsold, 19.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price.
1024	Alfred Consols	4½	40
235	Andrew and Nangilles	25½	30
1000	Barkistown	4½	27½ 30
4000	Bedford	2½	3½
128	Besore Lead Mine	14	30
320	Birch Tor Tin Mine	19½	15
8000	Blaenavon	50	40
256	Bodwannick	3	—
100	Botallack	175	300
120	Brewer	—	5
10000	British Iron, New, regis.	10	19
—	Ditto ditto, scrip	10	19
128	Budnick Consols	52½	45
100	Bwlch Cwmerfin	20	—
1000	Callington	19	22½
256	Caradon Consols	45	25
256	Caradon Copper Mine	9½	1
256	Caradon Mines	15	24
256	Caradon United	24	12
256	Caradon Wh. Hooper	12	7
1000	Carn Brea	15	100
114	Charlestown	—	200
166	Cleveland	9	7*
1900	Combmartin	5½	4½
1000	Comblawn	½	2
128	Comfort	—	40
5000	Con. Tretoil Mining Ass.	3½	¼
128	Condurrow	36	55
2560	Cook's Kitchen	—	4
1000	Copper Bottom	1	5
1024	Cosheen	4½	30
240	Craddock Moor	14	25
128	Creeg Braws	120	200
500	Cubert Mine	12	30
7100	Derwent	8½	5
1024	Devon & Courtney Con.	4	4
1000	Dhurode	2	5
186	Dolcoath	—	40
10000	Durham County Coal	45	9
256	East Alvenney	3	10
112	East Caradon	40	60
2048	East Crowndale	2	2
128	East Pool	5	20
100	East Relistian	16	17
9000	East Tamar Consols	1½	2½
—	East Wheal Albert	1	3
94	East Wheal Crofty	—	300
256	East Wheal Fortune	1½	3
256	East Wheal Kitty	½	3
128	East Wheal Rose	50	1100
123	East Wheal Seton	2½	12
512	Fowey Consols	—	40
20000	Galvanised Iron Co.	10	9
10000	Gen. Mining Co. for Irel.	½	½
1000	Godolphin	—	—
256	Gonamena	19	95
128	Gover	23	200
244½	Grambler & St. Aubyn	—	25
100	Great Consols	1000	400
256	Great Callestock Moors	11½	12
256	Great Mitchel Consols	—	3½
256	Great Resugga Moor	1½	3
512	Gt. Wh. Rough Torr Con.	1	20
100	Grogwinion	5	—
1000	Gunnis Lake	1½	3
1000	Hanson	14	3
1000	Harrowbarrow Old Mine	5½	3
1000	Harrowbarrow Consols	2	½
800	Hawkmoor	3	2
6000	Heignston Down Con.	1	2
256	Herodsfoot	14	8
10000	Hibernian	12½	1
—	Hobb's Hill	4	3
1000	Holmbush	18	9½
256	Ivy Tor	1½	2½
827	Kirkcudbrightshire	3½	6
2048	Lamherooe Wh. Maria	8	5
2048	Lanivet Consols	2½	2½
200	Larkholes	1	3
160	Levant	—	90
1000	Lewis	15	6
1280	Llancynfelin	6	10
128	Ludcott	3	3
4000	Marke Valley	10	3½
5000	Mendip Hills	1½	1½
20000	Mining Co. of Ireland	7	12
200	Nanterrow Consols	14½	10
128	North Fowey Consols	15	20
100	North Pool	11	52
70	North Roskear	10½	300
256	North Treburget	2½	4
100	North United	41	20
256	North Wh. Leisure	1½	4
128	North Wh. Providence	2½	10
256	North Wheal Rose	26½	10
15000	Northern Coal Co.	23	2
600	Old Delabole Slate Co.	25	45
128	Par Consols	—	900
256	Pembroke	½	2½
256	Penhallow Moor	15	4
6000	Pennant	1	1½
100	Penrhiw	30	65
128	Pen-y-Cefn Mine	50	55
1280	Perran St. George Un.	13	20
128	Perran Wh. Virgin	9½	40
512	Plymouth Wh. Yeoland	1½	3½
2048	Prince Edward	1½	1½
256	Redruth Consols	3	8
10000	Rhymney Iron	50	25
256	Rose Consols	10	3
1000	Rosewall Hill	1	3½
2500	Silver Valley	3	2
256	Sourton Consols	3½	3
128	South Caradon	10	350
2000	South Dolcoath	2	—
256	Sth. Friendsh. Wh. Ann	7½	16
200	South Harvannah	23	26
194	South Tolgus	2½	5
800	South Towan	10	1½
256	South Trelawney	12½	8
128	South Yeoland	16½	20
128	South Wheal Basset	—	120

BRITISH MINES—*continued.*

Shares.	Company.	Paid	Price.
124	South Wh. Francis	67	160
256	South Wh. Hope	—	5
1000	South Wh. Maria	2½	2
256	South Wheal Rose	11½	1
10000	Southern & Western, Irish	1	2
256	St. Austell Consols	7	15
94	St. Ives Consols	—	600
1000	Stray Park	43	21
9000	Tamar Consols	3	5
1024	Tavy Consols	1½	3½
6000	Tincroft	7	11
256	Ting Tang	89	19½
128	Tokenbury	124	15½
256	Treliane	—	18
1024	Trelawney Consols	1½	1½
5000	Treleigh Consols	0	3½
256	Trenow Consols	—	110
96	Tresavean	10	250
120	Trethellan	5	25
120	Treviskey and Barrier	61	120
256	Trewallack	—	15
128	Trewellard	12	25½
4000	United Hills	3	2
100	United Mines	300	800
256	Wellington Mines	15	50
128	West Basset	45	10
256	West Caradon	20	250
128	West Cargoll	2	12
512	West Fowey Consols	40	35
—	West Kekewich Consols	—	3½
256	Wheal Kekewich	4	6
256	West Providence	—	10
200	West Seton	—	42
120	West Trethellan	5	30
256	West United Hills	4	4
256	West Wh. Friendship	7½	5
3845	West Wheal Jewel	11	2½
2560	West Wh. Maria	½	2
2560	West Wh. Mitchell	—	2
256	West Wheal Shepherd	—	6
256	West Wheal Tolgus	21½	10
256	West Wheal Treasury	14½	8
240	Westerlake	3	3
6000	Wicklow Copper	5	16
1000	Wheal Agar	—	—
256	Wheal Albert	10	8
128	Wheal Acland	13	2
256	Wheal Allen	½	4
368	Wheal Anderton	10½	11½
128	Wheal Ann	—	50
128	Wheal Arvose	2	2½
256	Wheal Esencowe	—	10
256	Wheal Byon Consols	½	½
136	Wheal Clifford	—	190
1024	Wheal Concord	6½	6½
512	Wheal Elizabeth	2½	3
256	Wheal Fortescue	4½	5
2048	Wheal Frederick	2	2
384	Wheal Franco	25	30
512	Wheal Fortune Consols	1	4
256	Wheal Gill	19½	18
128	Wheal Harriet	45	48
2048	Wheal Holwell	1½	1½
109	Wheal Hope (Zennor)	23	25
256	Wheal Jane	6	40
265	Wheal Kendall	11½	5
256	Wheal Louisa	5½	10
1024	Wheal Maria	1	420
4000	Wheal Martha Consols	5	2½
256	Wheal Mary Ann	5	80
1024	Wheal Mary (Calstock)	4½	1½
256	Wheal Mary Consols	30	25
256	Wheal Mary Lanivet	2½	8
256	Wheal Mary Pentuan	1	2
256	Wheal Maud	1½	4
128	Wheal Metha	16	100
256	Wheal Norris	9	4
128	Wheal Pollard	12½	12
128	Wheal Prospect	4	9
128	Wheal Providence	34	40
128	Wheal Reeth	1	60
128	Wheal Rose	40	25
256	Wheal Salusbury	13	1
512	Wheal Sarah	2½	5
99	Wheal Seton	150	900
1024	Wheal Spearne	1½	8
256	Wheal Sisters	25½	20
128	Wheal St. Cleer	21½	15
260	Wheal Trelawney	7½	120
256	Wheal Tremaine	1½	8
256	Wheal Trevenna	3½	½
256	Wheal Trewennan	—	10
128	Wheal Venland	12½	10
256	Wheal Victoria	2	2
127	Wheal Virgin	—	50
1024	Wheal Walter	4	3
256	Wheal Williams	2	20

FOREIGN MINES.

Shares.	Company.	Paid	Price.
5000	Alten Mining Company	14½	3
15000	Asturian Mining Co.	6	3
10000	Anglo-Mexican Co.	100	3
3374	Ditto Subscription	25	4
2000	Bolanos	150	6½
12000	Ditto Scrip	15	5
10000	Brazilian Imperial	20	4
12000	Cobre Copper Co.	40	18
8500	Colombian Co. regis.	55	4½
5000	Ditto Scrip	—	
10000	Copiapo Mining Co.	14	3
20000	General Mining Ass'n.	20	15½
5051	Mexican Company	59	—
12000	Mocaubas & Cocaes	25	7
29320	Rl. del Monte, regis. / Ditto unregistered	28½	av. 4
	Ditto Red Debentures	—	19
	Ditto Black ditto	—	17
	Ditto Loan Notes	150	117
7050	Royal Santiago	10	7½
2000	Pachuca Mines	3	3½
11000	St. John del Rey	15	9½
43174	United Mexican	28½	3½

*** *We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List as we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.*

LATEST CURRENT PRICES OF METALS.

LONDON, OCTOBER 30, 1845.

	£	s.	£	s.	d.
IRON—Bar a..Wales..ton	8	15—	9	0	0
„ ..London	0	0—	10	0	0
Nail rods „	0	0—	10	15	0
Hoop (Staf.) „	11	5—	11	10	0
Sheet „ „	0	0—	13	0	0
Bars „ „	11	0—	11	10	0
Welsh cold-blast foundry pig	4	10—	5	10	0
Scotch pig b, Clyde	3	10—	3	12	0
Rails, average	9	10—	9	15	0
Russian, CCND c.	0	0—	—		
„ PSI	0	0—	—		
„ Gourieff	0	0—	15	0	0
„ Archangel	0	0—	13	10	0
Swedish d, on the spot	0	0—	11	10	0
„ Steel, fagt.	0	0—	16	0	0
„ „ kegs e	14	0—	14	10	0
COPPER—Tile f	0	0—	87	10	0
Tough cake	0	0—	88	10	0
Best selected	0	0—	91	10	0

	£	s.	£	s.	d.
COPPER—Ordin. sheets, lb.	0	0—	0	0	10
„ bottoms	0	0—	0	0	11
TIN—Com. blocks g..cwt.	0	0—	4	18	0
„ bars	0	0—	4	19	6
Refined	0	0—	5	1	0
Straits h	4	18—	4	19	0
Banca	5	0—	5	2	0
TIN-PLATES—Ch., IC i, box	1	9—	1	11	0
„ IX	1	15—	1	17	0
Coke, IC	1	6—	1	6	6
„ IX	1	12—	1	12	6
LEAD—Sheet k ...ton	0	0—	19	0	0
Pig, refined	0	0—	20	10	0
„ common	18	5—	18	10	0
„ Spanish, in bd.	0	0—	18	0	0
„ American	0	0—	—		
SPELTER—(Cake) l	18	15—	19	0	0
ZINC—(Sheet) m export.*	0	0—	28	0	0
QUICKSILVER n ... lb.	0	0—	0	4	6
REFINED METAL ...ton	0	0—	—		

a Discount 2½ per cent. b Net cash. c Discount 2½ per cent. d Ditto. e In kegs ½ and ⅝-inch. f Discount 3 per cent. g Ditto 2½ per cent. h Net cash. in bond. i Discount 3 per cent. k Ditto 2½ per cent. l Net cash. m Discount 1½ per cent. n Discount 1½ per cent. * For home use it is 32l. per ton.

[*From our Correspondent.*]

IRON is steady at quotations, with a moderate demand.

TIN.—English continues in demand, with stocks inadequate, and prices very unsettled.

TIN-PLATES are in good request; the stock of cokes is low.

COPPER, LEAD, and SPELTER, are quiet at quotations. The business in metals, since last week's *Mining Journal*, has exhibited less activity generally than before; but the stocks in first hands being low, and manufacturers tolerably full of orders, there is every probability of prices being maintained.

GLASGOW PIG-IRON TRADE.

TO THE EDITOR OF THE MINING JOURNAL.

OCT. 28.—Our market has been rather quiet during the week, and prices have ruled much the same as before quoted. A moderate amount of business has been done, and the market closed to-day firmly, without any change in our quotations—viz.: 69s. for No. 3; 71s. for mixed Nos.; and 72s. to 72s. 6d. for No. 1—cash.

DOUGLAS & HILL, Metal Brokers.

BOMBAY, OCT. 1.—The sales of metals have been few, but the market is in a healthy state, and the limited nature of the business done arises mainly from the indisposition of holders to accept the current rates offered by dealers. In copper, sheathing, raised bottoms, and tiles, may be quoted somewhat higher than before—60 rupees per cwt. having been refused for the first, and 62 rupees for the second, of the abovenamed varieties. We have heard of no transactions; but stocks are light, and better prices will probably are long be obtainable. In Swedish bar iron, a sale has, we hear, been made of 300 candies at 50½ rupees per candy; but the particulars have not been communicated to us for publication. In British bar, nail rod, and sheet, we are apprised of no operations, but the two latter are a shade higher than at the date of our last. The same may be said of hoop, of which, we understand, a sale has taken place at 7 r. 2 a. per cwt. Steel in tubs appears to have a downward tendency; in faggots it is without change; neither variety is at present in demand. Lead, both pig and sheet, is in some request, and we believe a transaction has taken place in the former at 11 r. 2 a. per cwt. Of the latter, which we quote half a rupee per cwt. higher than before, there is now little or none in the market. Spelter has of late been in some demand. Quicksilver, owing to the firmness of holders, has advanced 18 rupees per maund. The price of tin-plates remains stationary at 15 rupees, our former quotation—no sales of the article having taken place.

CURRENT PRICE OF GOLD AND SILVER.

Foreign gold in bars .... per oz.	£3	17	9	New dollars ..... per oz.	£0	0	0
„ Portugal pieces	0	0	0	Silver in bars (Standard)	0	0	0

NEWPORT AND ABERGAVENNY, AND HEREFORD AND LLANVIHANGEL RAILWAY.—At a meeting of proprietors of the latter line, on Thursday, the proposed transfer of its plans and effects, by purchase, to the Newport and Abergavenny, for 21,000, together with that of the Grosmont Railway, was postponed for further consideration.

The first line in the Furness district was opened for traffic on the 20th July last, and for passengers on the 24th Aug. last, when no particular ceremonial took place, but the event was celebrated by a grand banquet on Tuesday week, the 20th inst., at the Old Manor House, Ulverston.—The Sunday trains on the Edinburgh and Glasgow Railway are to cease running on and after the 16th of next month.—During the heavy gales of last week, the sea has made several breaches in the wall erecting at the foot of Penmanmawr for the Chester and Holyhead line: also, to the sea wall on the South Devon line.—A new goods engine, the *Vesuvius*, has just been launched on the Great Western. She is a six-wheeler, coupled; 5 ft. diameter; cylinder, 18 in.; stroke, 24 in.; boiler, 16 ft.; weight, without water, 36 tons, and when loaded with tender, 56 tons.—A line between Worcester and Hereford is now being surveyed, promoted by the narrow gauge interest.—A letter of the 20th, from Paris, states that such is the demand for Irish labourers on French lines, that they can earn from 5 f. to 6 f. a day, while the native workmen only receive from 3f. to 3½ f.

COPPER ORES.

Sampled Oct. 14, and Sold at Farquharson's Hotel, Truro, Oct. 29, 1846.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
United Mines	113	£4 3 0	Par Consols	106	£5 19 6
ditto	105	6 19 6	ditto	78	4 11 0
ditto	102	4 0 6	ditto	44	7 5 6
ditto	101	3 17 6	Treleigh Consols	95	4 1 6
ditto	100	4 12 0	ditto	59	9 12 0
ditto	92	6 11 6	ditto	52	3 10 6
ditto	90	3 11 0	Cop. House Dross	80	1 14 6
ditto	80	6 15 6	ditto	68	2 1 0
ditto	78	4 7 6	ditto	10	2 19 0
ditto	72	4 7 0	Creegbraws	68	5 0 6
ditto	67	4 13 0	ditto	45	5 19 0
ditto	61	6 15 6	ditto	22	4 5 0
ditto	53	4 12 0	ditto	13	3 18 6
ditto	41	2 7 0	Trethellan	85	2 16 6
ditto	37	4 18 0	Wh. Sisters	40	5 8 0
South Caradon	91	7 17 0	ditto	27	6 9 6
ditto	86	5 4 0	North Downs	36	5 17 6
ditto	68	5 12 0	ditto	15	6 4 6
ditto	60	5 6 0	West Trethellan	40	3 3 6
ditto	49	4 3 0	Penpoll Regulus	40	11 2 6
ditto	22	7 17 0	Wh. Gill	38	3 6 0

TOTAL PRODUCE.

United Mines	1192	£5830 7 6	Trethellan	85	£240 2 6
South Caradon	376	2236 8 0	Wh. Sisters	67	390 16 6
Par Consols	228	1308 7 0	North Downs	51	305 17 6
Treleigh Consols	206	1136 16 6	West Trethellan	40	127 0 0
Copper House Dross	158	306 18 0	Penpoll Regulus	40	445 0 0
Creegbraws	148	753 19 6	Wheal Gill	38	125 6 0

Average Standard .... £103 18 0 | Average Produce 7½
Average Price per ton £5 1 0
Quantity of Ore .... 2629 tons. | Quantity of Fine Copper, 196 tons 13 cwts.
Amount of Money £13,206 1 0
LAST SALE.—Average Standard ...... £ 92 11 0.—Average Produce 9½

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	202	£1339 14 0
English Copper	373	1912 13 0
Vivian and Sons	370	2360 7 6
Freeman and Co.	536	1875 13 6
Grenfell and Sons	168	1077 3 6
Crown Copper Company	73	285 4 3
Sims, Willyams, and Co.	342	1679 14 6
Williams, Foster, and Co.	565	2675 10 9
Total tons	2629	£13,206 1 0

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—North Roskear 822—Consolidated Mines 653—Tincroft 441—Wheal Seton 350—Fowey Consols 237—South Roskear 185—South Wheal Basset 185—South Wheal Francis 161—Wheal Harriet 124—St. Agnes Consols 92—Lanivet Consols 70—Tretoil 61—Wheal Vyvyan 57—East Wheal Crofty 52—St. Austell Consols 23—Penstruthal 11—Great Polgooth 11.—Total, 3535 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Carn Brea Mines 769—United Hills 367—Wheal Prosper 274—Par Consols 252—Levant 180—Trenow Consols 100—Alfred Consols 97—Wheal Rodney 70—Cook's Kitchen 64—West Wheal Treasury 53—Michell's Ore 36—Carn Perran 29—North Wheal Basset 25—St. Ives Consols 20—Wheal Agar 20—Gwinear Consols 19—Redruth Consols 16—Wheal Ruby 8.—Total, 2399 tons.

COPPER ORES

Sampled October 7, and Sold at Swansea, October 28, 1846.

Mines.	Tons.	Prod.	Stand.	Price.	Mines.	Tons.	Prod.	Stand.	Price.
Knockmahon	112	11½	94½	£8 12 0	Kapunda	77	26	86½	£20 5 6
ditto	100	8	102½	5 19 0	ditto	27	25¾	87	20 1 6
ditto	79	9½	99½	7 4 0	Berehaven	90	10	97½	7 10 6
ditto	60	4½	117½	2 12 0	ditto	80	9¾	99½	7 8 6
ditto	59	10½	96	8 3 6	Cobre	53	13½	90½	9 19 6
Chili	97	19½	89½	15 3 6	ditto	41	21½	86½	16 5 6
ditto	86	20½	87¾	15 10 0	ditto	17	13½	90½	10 1 0
ditto	81	20½	88½	15 12 0	Kenmare	44	6½	112	4 12 0
ditto	69	20½	87½	15 10 6	Holyford	17	26½	89	21 10 0
Kapunda	86	25½	87½	20 3 6	ditto	9	20½	90½	16 2 6
ditto	79	25½	87½	20 4 6					

TOTAL PRODUCE.

Knockmahon	410	£2765 6 0	Cobre	111	£1366 16 0
Chili	333	5141 16 6	Kenmare	44	202 8 0
Kapunda	260	5436 0 6	Holyford	26	510 12 6
Berehaven	170	1271 5 0			

Total tons, 1363.—Total amount, £16,694 5s. 0d.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
English Copper Company	183	£2307 0 6
Freeman and Co.	44	712 17 6
P. Grenfells and Sons	240	3014 2 0
Sims, Willyams, and Co.	193	2858 6 6
Vivian and Sons	373	2384 4 0
Williams, Foster, and Co.	330	4517 14 6
Total tons	1363	£16,694 5 0

Copper Ores for Sale, Nov. 11.—Cobre 105, ditto 90, ditto 83, ditto 80, ditto 75, ditto 61—Santiago 83, ditto 80, ditto 76, ditto 72, ditto 54, ditto 50—Cuba 76, ditto 55, ditto 52, ditto 50, ditto 44—Burra Burra 66, ditto 57, ditto 53, ditto 52, ditto 48—Cronebane 103, ditto 80, ditto 52—Chili 50, ditto 49, ditto 48, ditto 76—Pensylvania 101, ditto 58, ditto 41—Berehaven 120—Llandidno 55, ditto 38, ditto 22—Ballymurtagh 62, ditto 35—Havana 36.—Total, 2499 tons.

NOTICES TO CORRESPONDENTS.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained before Twelve of all the news agents, at the Royal Exchange and neighbourhood.

THE MINING JOURNAL

And Atmospheric Railway Gazette.

LONDON, OCTOBER 31, 1846

We direct the attention of our readers, more especially those connected with the making, or manufacture, of iron, to a very able pamphlet, written by our correspondent, JASPER W. ROGERS, C.E. (published by RIDGWAY, Piccadilly), pointing out a mode for the permanent employment of the overplus labouring population of Ireland. It contains more interesting information as to the real state of that country, and the causes of the misery which so often assail it, than any work we have met with on the subject. It also points out the simplest and most effectual means for preventing the evil in future, by employing the people in the preparation, generally throughout the country, of different kinds of fuel, from the immense bog districts, which, it appears, occupy 3,000,000 acres, out of 20,000,000, the whole area of Ireland.

That this fuel is of the highest value, there cannot be a question; and it is scarcely possible to conceive, that so valuable a matter should have so long been left unproductive in the country. It is clearly of the utmost consequence to general manufacturing purposes; and, to the ironmasters of England, it will give what they have so long sought for—namely, a fuel, which will enable them to produce at home as good, if not better, iron than the best foreign.

Mr. ROGERS is no theorist: he says—"Eight years of active labour" has taught him the real value of the fuel—that he has "been in the habit of having peat charcoal prepared for smiths' use, *infinitely in preference to any coal*, and that, *if within the reach of the manufactories of iron, at the price which it can be produced, no other fuel would be used.*" We shall, however, return to the subject, being one of so much interest, and conclude our present remarks by the following extract from this valuable work:—

Charcoal of peat has been found by analysis to possess almost identical qualities with wood charcoal; prepared as it hitherto has been, however, it is more friable, and therefore more fitted for many purposes—such as the working of iron, manufacture of gunpowder, &c., &c., and also as a fertiliser—the great value of which is not known in this country, and which I shall more fully describe under that head: but peat charcoal is quite capable of being prepared, by proper care, so as to obtain a density little, if at all, inferior to wood charcoal.

The calorific value of peat coke may be commercially averaged as equal to coal coke; the variation in the preparation, &c., of each, causing fluctuations in the heating effect, which may turn the scale either ways.

Experiments in their evaporative powers have shown that 1 lb. of the latter, evaporated in pounds of water 13·0—while 1 lb. of the former, evaporated 12·8—but the relative values otherwise preponderate largely in favour of peat coke, from the causes already stated, and the total absence of sulphur! from which reason its superiority, over any description of fuel now possible to be obtained, is absolute—particularly for the following purposes; in fact, the leading manufactures of Great Britain—viz.:

For the working of malleable iron;
For melting unmalleable or cast iron;
For all descriptions of brass and copper work.—and for the smelting and general manufacture of iron from the ore.

For the first, I have already pointed out, in my proposition to the Lord Lieutenant, the results of my own practical experience; and I hesitate not again to say, that its introduction will be the means of conferring the utmost service on the public at large, by the extra stability of iron work—a matter of the highest consideration at present, when the lives of hundreds may be sacrificed by the breaking of a single axle: it is impossible, in fact, to describe its advantage too strongly. The want of such a fuel, also, to the English ironmaster, has been the cause of expenditure almost incalculable, in seeking means to compete with foreign iron, which this at once gives him. Hitherto his efforts have been fruitless—for the grand evil, caused by sulphur, has been insurmountable: the half rude furnaces of the north, still supply us with an article we cannot rival; and for which we are forced to pay a price two or three times above our own.

Since the foregoing was in type, we have learned that all necessary arrangements are being made for carrying this measure into full effect throughout the entire of Ireland, by means of an association, to be denominated "THE IRISH AMELIORATION SOCIETY," under the most leading patronage and sanction. The objects in view are—First, the employment of the overplus population, by converting the peat into this most desirable fuel—thus effectually reclaiming the land for cultivation, from which highly lucrative returns will be made; and, secondly, the improvement of the condition of the people. The success of a measure of so much national good must be the wish of every right-minded man.

In the list of Mine Accidents, which appears, as usual, in another column, and which, unfortunately, contains several of a most awful description, will be found one from the breaking of a rope, by which one man was killed, and three others dreadfully injured. It was given in evidence, that this rope had only been in use four or five days; and, during that short time, it had broke four times, but not quite through, and was repaired. Although, the jury, from the evidence, returned a verdict of "accidental death," as it appeared the miners had placed the rope there themselves, in exchange for the usual chain—unknown to the "butty"—and hence the fatal accident; we would ask, whose duty is it to see that the machinery is in an efficient state, and the ropes and chain sufficiently strong for the purpose of sustaining the enormous weights which they have to bear? and, if this rope had not been before used, who supplied such a counterfeit piece of material? It was, doubtless, made from old repicked rope-yarn, and perfectly rotten: at all events, a searching investigation is required somewhere. A death at a coal mine seems to cause no particular notice—and something ought to be done by the owners, as well as the Legislature, to alter this barbarous and morbid state of feeling.

The unsatisfactory, and, indeed, unjust, constitution of the patent laws of this country has long been matter of very general complaint on the part of the public—of the deepest consideration to many members of the profession for their amendment—of some little inquiry in one branch of our legislation, without producing any results—and, the greatest grievance of all, losses and disappointment to inventors after years of toiling investigation, and the total suppression altogether of the exertions of many a rising genius. Unreasonably and enormously expensive in the first instance, the periods usually granted by far too short, to secure in numerous cases even a return of the pecuniary sacrifices made, and surrounded in every direction by scheming and unprincipled infringers, with no remedy but "the glorious uncertainty of the law," a British patentee often finds himself at the expiration of his "seven" or his "14 years," in a sadly worse condition than before he attempted to secure some of the just fruits of his ingenuity and enterprise.

We are led to these remarks, by the position in which the patentee of the "yellow metal," for sheathing ships, is placed at the present moment. This metal has long been acknowledged by the mercantile and nautical world as superior in cleanliness and economy for sheathing ships to any other substance hitherto employed; its inventor was at great expense in bringing its merits into the general notice of the public; and was for years harassed by being compelled to have recourse to law proceedings against the infringement of his patent, which were obstinately defended; and, when the greater portion of the term is expired, he finds himself entirely unremunerated—to the extent which, from the capital sunk in the manufacture, he had a right to expect; he accordingly applies to the Lords of the Privy Council for an extension, and, after long examinations of witnesses and vexatious delays, he fails to convince the court of the sacrifices he has made, and they pronounce against an extension. His patent expired on the 22d inst., and now, mark the result—no sooner is Mr. MUNTZ thrown into competition with the whole metal trade, than the very parties who pirated the invention, and were only restrained, by the strong arm of the Court of Chancery, from robbing him of his undoubted rights and profits, have had the effrontery to make overtures, to induce Mr. MUNTZ to keep up the same prices with respect to copper, as were obtained under the patent! Endeavours of the same kind have also been made by other parties, but we are happy to find that these proposals have been met with a most decided refusal: feeling convinced that if he, as the inventor, was not allowed to retain the privilege, the public were fully entitled to it; he has, accordingly, already reduced the price ½d. per lb., compared with copper, and is determined, at all times, to sell his manufacture at the lowest possible prices. This is as it should be, and reflects great credit on Mr. MUNTZ, who having now appointed agents at the principal ports, and will, in future, have his name in full on every sheet and every bolt, which no other house can legally imitate, we have no doubt he will meet with that support to which his firm and independent conduct so justly entitle him.

Our report, in last week's MINING JOURNAL, of the half-yearly meeting of the Galvanised Iron Company must have been read with great gratification by the absent shareholders, and with pleasure by all interested in the present state and future prospects of the iron trade. The exertions made by the directors and managers to render available the vast resources at their command, to take the earliest possible advantage of the present flourishing state of the iron trade, consistent with the proper development of the company's valuable mineral property,—and thus secure to the proprietors the quickest, and most productive, return for their capital—have been pursued with untiring perseverance, and the sequel will doubtless show that they have been crowned with triumphant success—while, from the extent of property held, and its valuable produce, this company bids fair shortly to stand second to none among the iron manufacturers of this great iron producing country. Mr. JOB TAYLOR, in his report on the mining property in South Wales, says—"As to the quantity of coal and ironstone, I never saw in any district so great a quantity contained in an acre; the quality of the coal is very good, and the ironstone is as good as can be seen in any district in which I have been. In the company's works at Garth, the blackband, which is of excellent quality, proves most abundant, and the workings are now in a state to produce a much greater quantity than can be used." It will be seen, from the report, that the outlay on the capital account for the half-year has been 65,427*l.*, while only 36,625*l.* has been received from calls; and although, by the purchase of the Corbyn's Hall estate, 35,000*l.* has been expended, more than was contemplated on raising the new capital, it is anticipated by the directors, that the additional call of 1*l.* per share on the new capital (authorised at the meeting) will be amply sufficient for all purposes; and they consider it matter of congratulation that, in the face of scarcity of labour, and high wages, inducing the men to work only two-thirds of their time, with mines only partially opened and unfinished works, they are enabled to declare a dividend of 6 per cent. per annum for the half year, free of income tax. Although this dividend is less than the former one, the cause is clearly accounted for; and the future prospects of the company are of the most promising description. It is fully *presumed* that, after January next, 10 furnaces would be in blast, with underground works, capable of supplying more, two rolling mills in full work, the galvanised iron manufacture considerably increased, and the company's resources in full operation, when a return of profit may confidently be expected, more commensurate with the magnitude of the undertaking, and the large capital embarked.

The arbitration in the case of the Wheal Mary Ann and Trelawney Mine is at length decided, and the award is in perfect accordance with the view which we ever entertained, and that expressed by those most competent to form an opinion on the subject—while we believe we only state that which will be fully borne out, when we say, that the present instance may be considered as isolated; and that the conduct of Capt. CLYMO and his coadjutors is generally condemned throughout both the counties of Cornwall and Devon. We have avoided, heretofore, any notice of the subject, being anxious neither to prejudge the question, nor to anticipate the result at which the arbitrators have arrived. The result, however, is simply this—and, as we are informed, concurred in by all parties—that the shareholders in the Trelawney Mine are entitled to the shares *pro rata*; and, moreover, that Messrs. CLYMO and LYNE are to pay *all* costs, whether as affects the Chancery suit, reference, or other proceedings—thus giving to the shareholders of the Trelawney sett their rights—while the decree visits on the parties who opposed them the entire costs. We are most glad that such an example should be put forward, and that such retribution should have visited the parties. We know some one or other of them to have been guilty of acts which should have excluded them from society, and to which the success of South Caradon may be mainly indebted; but such, we believe, were in a measure made up by the payment of some 90*l.* or 100*l.* for stores obtained from a neighbouring mine (*Wheal Gill*): the present attempt is, however, to say the least, "too bad." Messrs. CLYMO and LYNE (the lawyer, we believe,) take advantage of acquiring from the (lady) lord the sett of Mary Ann, on the representation that it is for and on behalf of the Trelawney adventurers, and, at once having secured it, appropriate the majority of the shares to themselves—while they most liberally condescend to give a portion to their co-adventurers. The (lady) lord is appealed to, who states distinctly that the sett was granted to the adventurers generally, and hence the question is raised, which has now been solved, and a decree given, which reflects the highest credit on the parties to whom the matter was referred. When we mention that Capt. W. RICHARDS (of Redruth) was one of the arbitrators, and Capt. W. FRANCIS another; while Mr. RENDLE (of Tavistock) was the umpire, we need hardly say, that the decree was only such as might be expected from parties possessing so much practical experience and general knowledge, not to advert to their high character for probity. We need furthermore hardly say, that, with an instance like the present, the London adventurer may with confidence rest on justice being done to him, even by the Cornish folk; for, although they be "One and All," we believe that honesty and straightforward dealing is the course pursued, where the object of parties is to follow the "lode" in a right direction; and, if a cross-cut be driven, it is solely with the view of developing the resources in the sett, without regard to the "ins and outs."

It is only right to observe, with reference to the present question, that the mining interest is indebted to Mr. SMITH, who, with Messrs. ANDREW, MOUNT, and CHIPPENDALE, with other adventurers, holding 32 shares, or 130th, have upheld and maintained the rights of out-adventurers against the Cornish clique. Mr. SMITH, if our memory serves us, was the party who took proceedings in the case of the adventurers in Tresavean Mine, when under the management of the late Capt. TEAGUE. The Trethellan or adjoining sett was obtained under similar circumstances, although we must think there is much more reprehensible in the present case than in that under our immediate notice. We have had submitted to us the original letter or circular addressed to the shareholders in Wheal Trelawney, and the Messrs. CLYMO, and their friend, Mr. LYNE, who, it may be remembered, figured of late as regards the Albert, Victoria, or some other mine, on which occasion, we believe, his mining knowledge was admitted to be somewhat less than his legal tact, if not experience,—while we must needs say, we do feel some sympathy with those who have reposed in him their confidence, but who have (as we before observed) been disappointed.

We cannot close our brief notice, without adverting to the exertions of Mr. BROWNE (the solicitor employed on the part of Mr. SMITH); while equal credit is due to Mr. BRIDGMAN (of Tavistock, the solicitor for the defendants), who used the utmost exertions in

upholding the position of his clients; but, as the result proved, without effect. We understand the law costs will amount to full 1500*l.*; and, as the holders of 32 shares have succeeded in obtaining their rights, it remains to be seen what will be the course pursued by the adventurers holding the remaining 98 shares, of which we presume their can be little doubt. We can only, in closing our remarks, on the part of the adventurers in mines in Cornwall, express our thanks to Mr. SMITH and his coadjutors, for thus maintaining the rights of out-adventurers, and, at the same time, affording the proof which has been given, that there are parties in the county who will not see an injustice done, and more especially to those who they may, and, doubtless do, feel are not of the slightest importance, when considered as affects the supply of capital, or the working of mines in Cornwall.

Our friendly contemporary, the *Moniteur Industriel*, in its two last Numbers, in quoting the articles of the MINING JOURNAL on the iron trade of France, appears rather chagrined at the pointed remarks we have made at various periods on this all-important subject; and they accuse us of national partiality in favour of English and Scotch iron, which we are desirous to see the French markets glutted with, free of duty, or at a very low impost, to the great detriment of their iron and forgemasters. We confess we certainly have the interests of our own iron proprietors at heart; but we are not so *national* as to wish them prosperity at the price of the downfall or ruin of the industry of a friendly and enterprising nation. What we are desirous of seeing is a good feeling to exist between the different branches of industry of the two countries; and that no restrictive, or next to prohibitory, duties, should be imposed on the produce of each of them, to keep up a most injurious monopoly to please interested parties, either in or out of the Chambers, under the cloak of protection to the manufacturing and mining enterprise of the country at large. High duties have always been prejudicial to the development of commerical intercourse between nations; we cannot do better, therefore, than draw the attention of our readers to the letter of our Paris correspondent in another column, which gives an abstract of the interesting letter of M. LEON FAUCHER on the iron industry of France, and in which we most cordially concur, as it gives the state of the iron trade, or, more properly speaking, iron and forgemasters' monopoly, in its true light; and what the Government is bound to do to put down a system so injurious to the progress of railway speculation, steam navigation, iron shipbuilding, and commerce generally, to gratify the money-making few. M. DUMON, the Minister of Public Works, is a man of sound discerning judgment, unbiassed either by political feeling, or national prejudices; and we have no doubt that his late visit to his country, will have most beneficial results in inducing the Ministry to bring forward measures that will prove generally satisfactory, and advantageous to the intercourse between England and France. The days of prohibitive monopoly are drawing near their close—as Governments, as well as nations, are now fully convinced of the impolicy of such a system, that enricheth them not, and is so oppressive to the expansion of science, mining, agricultural, manufacturing, and commercial enterprise, all over the globe.

THE EAST OF SCOTLAND MALLEABLE IRON COMPANY.—We understand that this company is being formed, with every prospect of success. On Friday, the 9th inst., a meeting of the interim committee was held in the New Inn, Dunfermline, which was numerously attended—ALEXANDER ALISON, Esq., of the Forth Iron Works, in the chair.—At this meeting the following gentlemen were added to the interim committee:—Thomas Edington, Esq., of Blythwood-square, Glasgow, late of the Phœnix Iron Works there, and William Ferrie, Esq., manager of the Forth Iron Works.—The CHAIRMAN informed the meeting, that upwards of 12,000 shares had been applied for, comprising applications from various parties in England of the highest respectability and possessed of large capital. It seems a judicious proceeding in the originators of this company, that they have provided against speculation in the shares while the concern is in its infancy. Hence persons possessed of real capital have at once come forward to invest their money in it, relying upon the probability which exists of the concern proving a lucrative one. The grounds, upon which this reliance is placed, are well detailed in the prospectus issued by the interim committee, which appeared in the *Mining Journal* of the 26th Sept. They are shortly as follows:—The great demand that exists in Scotland for malleable iron—that there are only four malleable iron works in operation north of the Tweed—that none of these are situated on the east coast of Scotland at all—that Dunfermline, from the various railways projected and which have been commenced, having a terminus there, is in every respect the best site for such a work on the east coast of Scotland.—1. From the plentiful supply, cheapness, and excellence of the coal, in the immediate vicinity of the town.—2. From the abundant supply of pig-iron, which can easily be obtained by railway communication from the Forth, Devon, Rinniel, and Carron Iron Works.—3. From the abundance of convenient dwellings for the workmen within the town.—4. From there being a connection by railway already with the seaports of Charlestown, Inverkeithing, and St. David's. It is quite evident, therefore, that, upon fair terms, this company will have a command, not only of a foreign market at once for the disposal of malleable iron, but also of a considerable coasting trade along the whole east coast of Great Britain; while to the north inland there is no company as yet in existence, which can compete with them; and the demand for malleable iron throughout the whole northern counties of Scotland has now become very considerable, and is likely to increase, when the various projected lines of railway, leading northwards from Perth, are commenced. Among all the projects, therefore, which this fertile age for speculation has started, we have seen none more feasible and likely to prove lucrative than the East of Scotland Malleable Iron Company; and we are not surprised, therefore, that the whole shares have been so rapidly taken up—for we understand that the whole were allocated at the meeting, on the 9th inst., and since then a great number of additional applications for shares have been made.

MERIONETHSHIRE SLATE COMPANY.—We have, on various occasions, remarked on the superiority of the better kinds of slate, particularly that which is quarried in blocks sufficiently large to be cut into slabs, for almost innumerable purposes, connected with building and architecture, over the best paving stones and other cumbersome, and otherwise brittle and rough looking, materials, which have hitherto been employed, from imperative reason—viz.: because the supply has been wholly inadequate to the demand. It is now a well established fact, that from its being impervious to damp, and unaffected by either air, salt, milk, or the milder acids, and its strength, it is better adapted than almost any other substance for dairy fittings, the floors of malt and sugar-houses, salt bins, cisterns, sinks, window sills, stall boards and shelves for cheese and fishmongers' shops, and a variety of purposes too numerous to mention, but which may easily be conceived. Its beautiful appearance, too, when stained, manufactured, and polished, in imitation of various rare marbles, from which it cannot be distinguished, and which is obtained at one-third the price of common marble, has opened a new field for decoration in chimney pieces, table tops for drawing-rooms and halls, wash stands, plates for doors and shops, and an infinity of applications to the varied and beautiful ideas which are daily being embodied in our present elegant state of decorative architecture. Railway works are also becoming large consumers of slab slate, and which demand must greatly increase as the system extends. The consumers generally of this description of slate will be glad to learn, that a more abundant supply, than has hitherto come within their reach, will shortly be obtained—the extensive and valuable slate quarries of Tall-y-llyn, in Merionethshire, North Wales, will, by arrangements with the lessee, be placed in the hands of a company, formed under the above title; the rights extend over several hundred acres, the quantity is inexhaustible, and 40 years of the lease are unexpired. These quarries, by the unceasing labour of many years, are now, we understand, sufficiently opened to yield this current year 2000 tons, which, by proper working, increase progressively to many thousand tons, yielding a large amount of profit—a continual and increasing demand being, for a long time to come, certain to consume whatever may be produced. The capital is 50,000*l.*, in 5000 shares; although 38,000*l.* will do all that is required in prosecuting the works, erecting machinery, &c., at the quarry's mouth, where there is a great supply of water power; and, when the first object of the company is accomplished, depôts will be established in London, and other large cities and towns.

PROGRESS OF FRENCH MINING INDUSTRY.

[FROM OUR PARIS CORRESPONDENT.]

The departments, through which flows the river Loire, have been inundated by that river breaking from its bounds. The country for miles around was laid under water, as were also whole towns and villages. The damage done to property is enormous, and the number of lives lost very considerable. It does not appear, however, that persons interested in mining industry have suffered so much as might have been expected. Nevertheless, about 20,000*l.* worth of coals have been washed away, and great injury has been done to the railways of some of the coal-pits.

On the 9th November, contracts will be received at Brest for the supply of coal and iron. On the 19th of the same month, a contract for the supply of English coal to Cayenne will be received at the Ministry of Marine. Conditions of the contract may be obtained at the French Consulate at Newcastle-upon-Tyne. In the paragraph, given in your last Number, relative to the large contracts for the supply of coal to the Marine Department and Post-office, you state that the Government, being afraid to displease the coalowners of France, had not notified that they would receive contracts from Englishmen. This is a mistake. The notices state distinctly that particulars of the conditions of the contracts may be learned at the offices of the French Consuls in London and Newcastle-upon-Tyne, which is a clear proof that the Government not only allows, but solicits, offers from Englishmen—nay, more, if my memory does not deceive me, it is laid down that a large portion of the coal must be of "English origin." I hope such of your readers, as may design to offer for the contracts, will have acted upon the advice I ventured to give them, in announcing that the French Government required so vast a quantity of coal—I allude to what was said relative to the conditions currently stated to have been imposed upon English contractors, delivering their coal in French vessels. Whether this condition be really imposed, or not, I cannot say, not having had an opportunity of reading what the French call the *cahier des charges*; but if it be, I am satisfied that it is a flagrant violation of the navigation treaties between England and France, which Lord Palmerston would not have allowed for one moment, if it had been brought under his notice; and, moreover, the effects of it will be to put English contractors in a most unfavourable position *vis á vis* their foreign competitors.

Two or three months ago, you may recollect that almost every week I had to notice the formation of new companies, or the extension of old ones, for the fabrication of iron. Latterly the taste for this sort of thing seemed to have passed away; but it is now breaking out again with great violence. In every newspaper that one takes up may be found advertisements of the sale of iron and coal establishments, and of the formation of companies for setting up new concerns, and giving a vast development to those already established. It is at present impossible to tell what favour these projects may meet with from capitalists; but, if I were consulted, I should certainly recommend the greatest caution in having anything to do with them. A few months ago, the matter was very different. Then the schemes presented (such of them, that is, as were really serious) an excellent way of placing capital, for there was every earthly assurance of their paying admirably; but they have been sadly overdone.

The *Journal des Chemins de Fer* has at length become keenly alive to the scandalous abuses perpetrated by the present abominable tariff in favour of the ironmasters, and of the disastrous consequences which the said tariff causes to railway companies. It is a pity that this organ of the railway companies did not make war long ago upon the ironmasters; but better late than never. I hope, that now your contemporary has taken the matter up, he will not allow it to rest, until he shall have freed railways in particular, and all France in general, from the odious monopoly of a few avaricious individuals, who have for years been rioting in luxury on the money unjustly wrung from the unfortunate public. Compared to these ironmasters of France, the landlords of England were guiltless of taxing the public for their own benefit. The monopoly of our countrymen did at least ostensibly give employment and food to the vast majority of the nation; that of the French ironmasters, *au contraire*, only affords labour to some 100,000 persons at the outside, in a population of 35,000,000.

Quoting from a letter recently published in the *Siecle*, by M. Faucher, the deputy of Rheims, and one of the principal members of the Free Trade Association (which letter I myself had designed to bring under your notice), the *Journal des Chemins de Fer* states these facts:—In March, 1845, it was determined to establish an embranchment on the St. Germains Railway, for the trial of the atmospheric system; on the 22d of the same month, the company entered into a contract with Messrs. Schneider du Creuzot, for the supply of 1150 tubes, of 63 centimetres, and 1800 tubes of 58 centimetres; the former to be delivered at the latest by 28th Feb., 1846; the latter at the latest by 1st April; but up to the 5th August last only 294 tubes had been delivered, and on 17th Sept. the number did not exceed 400, even though Messrs. Schneider had called in the assistance of other establishments. This clearly proves the total inability of the ironmasters of France to execute the orders that pour in upon them. The price they exacted, too, was most extortionate—295 fr. the 1000 kil.—when the same articles could have been brought from England for from 180 fr. to 200 fr. It appears that the railway company demanded permission to bring the tubes from England, offering to pay to the Government, as Custom-house duty, the difference between the price in the English market, and that agreed to be paid to the French ironmasters. The Minister of Commerce replied, that the tariff positively prohibited the importation of such things as tubes; but he had no objection to allow them to be brought in as parts of a machine, paying duty of 55 fr. the 100 kil. on the large tubes, and 44 fr. on the small, or, in the whole, a sum of 1,248,000 fr., 49,920*l.* in our money! ! Fifty thousand pounds, or thereabouts, would certainly have been a very nice little sum to pay as "protective" duty to those French ironmasters for about a mile of atmospheric railway: but at a less price the company could not be allowed to purchase its tubes out of France; and yet it could not get them in France. This is true "protection" with a vengeance.

M. Faucher relates other facts, which show the absurd and monstrous effects of the iron monopoly. The Chambers have voted a large sum to any company that shall undertake to establish regular steam communication between France and different parts of America. A company was got up, with all its capital; but could not find any establishment in France, that would undertake to build the hulls of its vessels, which were to be in iron. The scarcity of iron, and the great demand, was the reason alleged for declining the order. The company then applied to the Minister of Commerce, to be allowed to import the iron necessary for the fabrication of the vessels. The Minister sent it the tariff, by which it was informed, that it could buy in as much iron as it pleased, on paying 440 fr. the ton, which, added to the original cost, and the expense of conveyance, would have made the iron 850 fr. (34*l.*!) the ton. At this rate the company might as well have thought of building its vessels of silver. It dissolved itself, and France has no communication with America.

Another fact: the duty on the importation of English *bandages* for the wheels of railway carriages is so high as to amount to a prohibition, notwithstanding they are far superior to those manufactured in France. Two establishments only, in this country, manufacture that article. Neither will accept any orders to be executed in less than two years. What are railway companies to do in the meantime? Heaven knows. Perhaps the Minister of Commerce will send them the tariff to study, as he did to the American Navigation Company. Seriously, however, all this is odious, abominable, atrocious, and it is really astonishing that it should be allowed to exist.

In the department of Moselle, a strict search is being made after iron ore. In the department of the Meurthe, 15 furnaces are being built, and there is a talk of building others.

A St. Dizier letter, dated the 22d, states that, in consequence of the return of water, all the iron establishments have recommenced business. At no time were orders known to be more numerous. The *fers lamines* were firm at 400 fr. delivered at St. Dizier, in Paris, and the provinces. *Fers battus* are expected to advance on present quotations, which are 390 fr. and 400 fr. for Paris, and 400 fr. and 410 fr. for the provinces. *Fontes blanches* were greatly in demand, but there were no sellers. *Tuyaux de descente* were 800 fr., being an advance of 30 fr., and 35 fr. since the 1st Oct.

A new iron establishment is about to be opened near Bourges, by the Marquis de Vogue. The furnaces will be heated with wood and coke.

An English company is forming a railway from the iron mines of Gillievara, in Sweden, to the port of Fonnefera. These mines are said to be the richest in all Sweden, but hitherto their products have been of little or no value, owing to the great cost of conveying them to a spot easy of access.—*Paris, Tuesday.*

ASTURIAN MINING COMPANY.—We understand Capt. O. H. Matthews, the manager of the mines belonging to this company, has arrived in England, and brings with him proofs of his successful mining operations in that country,—and which, we are informed, are accompanied with testimonials, &c., from the highest official authorities in the Asturias. Next week we hope to be in a position to say more.

MINING IN THE FOREST OF DEAN.—It is with pleasure we perceive some activity being developed in the very silent mining district of the Forest of Dean. Some of the coal and iron mine proprietors are up and stirring, by using all their endeavours to induce the South Wales Railway Company to go to Parliament this session for branch lines, that they may have their minerals carried at such a rate as will enable them to compete in the markets with their more fortunate neighbours. A deputation from the Forest waited upon the railway company, on Saturday last, when a meeting was held at the office, in London, and representatives from the mines—viz.: Mr. Braithwaite, of Park End, Mr. Joseph Dickinson, of Dowlais, and Mr. Greame, of Coleford—explained to Mr. Brunel and the directors the great necessity of an improved railway communication.

MINING IN SOUTH AUSTRALIA.

Every arrival in England with news from this interesting colony confirms preceding ones, as to its unprecedented and increasing prosperity. The *Phœbe* arrived last week with between 500 and 600 tons of Burra Burra ores; the shippers offered 16s. per ton more to go to Swansea direct, but the captain refused—being afraid of injuring his ship in Swansea harbour; the *Emu* was to sail a day or two after with 400 tons of Burra. The *Mary White*, with 450 tons of Kapunda ores, was to sail on the 1st of July, and may be expected in a fortnight; the *Cleveland*, which has put into Rio in distress, has between 200 and 300 tons of Burra ores on board. It, however, being the winter season in South Australia, the roads were heavy, and large stocks of ore were accumulating at the different mines, till the weather cleared up; 700 tons were at the pit's month of the Kapunda on the 10th of June, and between 700 and 800 at Burra Burra. In spite of the royalty imposition, against which strong petitions are addressed to both Houses of Parliament, approved of at a most influential public meeting; large sales of mineral lands were continuing to take place. Capt. Bagot has purchased for the Kapunda Company all the southern sections round Kapunda; the lodes dip from north to south; and the prices given by him and the other purchasers, will afford some idea of the competition and assumed value—viz.:

Sale of Sections (of 80 acres) *around the Kapunda Mine, on the 13th June*, 1846.

MORPHETTS, ANSTEY, STOCKS, TODD, COLLIER, AND OTHERS.

Section.	Price.	Section.	Price.
1400	£7101 0 0	1418	£249 0 0
1401	1000 0 0	1419	152 0 0
1402	400 0 0	1420	200 0 0
1403	500 0 0	1421	296 0 0
1404	350 0 0	1423	300 0 0
1407	215 0 0	1424	200 0 0
1408	202 0 0	1427	1600 0 0
1409	400 0 0	1426	820 0 0
1414	240 0 0	1428	2000 0 0
1417	194 0 0	1429	4400 0 0
	Total price		£20,719 0 0

BAGOT—FOR KAPUNDA COMPANY.

Section.	Price.	Section.	Price.
1405	£3016 0 0	1413	£2001 0 0
1406	223 0 0	1415	300 0 0
1410	130 0 0	1416	321 0 0
1411	95 1 0	1422	151 0 0
1412	121 0 0		
	Total price		£6,358 1 0

ASTON, STEPHENS, AND OTHERS.

1425	£3,005 0 0
Making the total amount of money	£30,082 1 0

The section adjoining the Burra Burra Mine, to the north, No. 1400, fetched the enormous price of 7101*l.* The London Australian Mining Company have taken their survey of 20,000 acres, and a new survey has been taken, at Mount Remarkable, by Messrs. Elder, Younghusband, J. Gilbert, Anstey, and Dutton. We have now the pleasure to announce, that the same gentlemen have claimed another special survey at Emu Plains, near the station of Mr. Gleeson, in which they have been influenced by unmistakeable value and advantages, similar to those which determined them in the prior instance. These operations are viewed with unmixed satisfaction, because the known prudence and discernment of the parties making these large selections, are sufficient to convince everybody there, as well as many persons of wealth and influence out of the colony, that the presumed value of the lands must be any thing but speculative. It is expected that the selections referred to will soon be found largely conducing to the individual wealth of those immediately concerned, and remarkably contributive to the assured prosperity of South Australia. It will astonish even the most sanguine friends of the colony to learn, that the exports of colonial produce, during the last quarter (ending 31st March), amounted in value to no less a sum than 104,000*l.* Total exports during the quarter, 109,000*l.* The imports, during the same quarter, were valued at 50,000*l.* The exports of colonial produce, during the whole of last year, amounted to 131,800*l.*; and the exports of colonial produce, during the corresponding quarter last year, amounted to 45,849*l.* The quarter's exports this year are nearly equal to the whole year's exports in 1845; and the increase over the corresponding quarter last year is upwards of 58,000*l.*

When the colonists themselves are showing such activity, and contributing such immense sums to the revenue for purposes of emigration and otherwise, it is cruel that the Government should have thought fit, by their impolitic act, to throw impediments in their way in the development of those mines, which can only be done when unhampered by Government interference. This measure itself emanated with Lord Stanley, and it remains to be seen whether, with free-trade principles triumphantly established in England, the colonists, who require more than ordinary encouragement, amidst the difficulties they have to encounter in that distant hemisphere, are to be crippled in their industry under the Liberal Government of Lord John Russell, merely because Lord Stanley, a member of a former Government, will not abandon his stubborn ideas on protection.

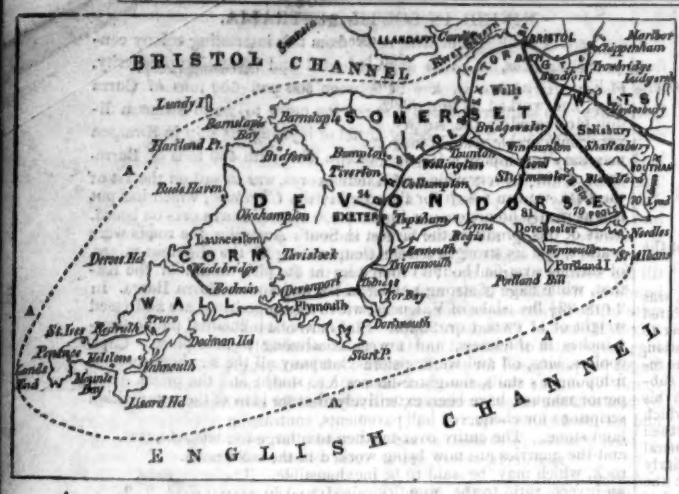
The petitions to both Houses of Parliament, which we have noticed one two or three previous occasions, enter very fully and feelingly into the question: they show that they emigrated under the protection, and on the faith, of certain Acts of Parliament; enter into statistical details to show the present value of the colony, brought about by the persevering activity of the present settlers; and demonstrate that any colonial regulations, imposing duties in defiance of such Acts (4 and 5 Will. IV., c. 95, and 1 and 2 Vic., c. 60), are illegal. What effect such impolitic regulations, if allowed to be carried into effect, may have on the welfare or loyalty of the colonists, remains to be seen; but we will close these remarks, with an extract from a leading article in the *South Australian Gazette*, of the day on which the meeting was held, and the petitions adopted:—

> We have every day proofs of the fearful condition into which Colonial-office mis-government has sunk the splendid settlement of Van Diemen's Land. Our readers will find elsewhere sad evidence of the wrongs under which it is attempted to blast the energies and to destroy the prosperity of New South Wales, and the indignant eloquence which was poured forth on that occasion must find an echo in every manly bosom in South Australia. Further off, in New Zealand, the bloody fruits of the same misrule are being gathered, and it is difficult to pronounce whether the natives or the colonists have the most reason to complain of the treachery and bad faith of their English masters. At the Mauritius, insult and disregard of national feelings have just been added to a long list of habitual outrages; while here, in South Australia, to crown all, and as if to show that the weakest can be trampled upon more grossly than all the rest, not only has the pledged faith of the English Government been disgracefully broken—moneys obtained from the colonists for a specific purpose boldly misapplied to another; but the more solemn engagements of the English Parliament are now openly disregarded—the contracts guaranteed by existing law set aside, and the property of the colonists sacrificed according to the despotic will of the Colonial Minister!—Is it not monstrous, that loyal and truly English people like those of South Australia should be so treated?—Can it be expected that they will long tamely submit to the very lowest grade of slavery—serfs of the Colonial-office, forsooth, or be content to rest their own prosperity, and that of their children, on the caprice of a fellow-subject—even though that subject be a Secretary of State? One more effort to be heard will be made this day. It may be treated with the same contempt that all previous appeals to the justice and sympathy of the English Government have been treated. But we conscientiously believe that it will be the last. If justice and right cannot be obtained in one way, they can both be secured in another. The signs of the times are palpable enough. The colonists of Australia desire to remain faithful and devoted members of the British empire; but they are also resolved to be treated as British subjects.

We understand that Mr. Francis Dutton, the author of the *History of South Australia*, intends publishing a pamphlet before the ensuing meeting in Parliament, entering at length into the merits of the question, and showing the basis upon which Australia became a free colony, and the crying injustice of the attempted adoption of the threatened measures; we believe he also intends forwarding a copy to every Member of Parliament.

THE RENOWNED DIAMOND MINES OF BRAZIL.—We gave, some few months back, a very detailed description of the far-famed newly discovered diamond mines of Sincora in the Brazils, at the same time expressing our opinion that they would prove a failure. From the latest accounts, it appears that these deposits, which were represented so rich in diamonds, as to furnish not only the whole of Europe, but nearly the whole world, with this precious mineral, are nearly totally abandoned, in consequence of the continual outbreaks between the Brazilian and English searchers of brilliants, and the depredations which ensued completely discouraging the enterprise of the speculators; and also from those which had been sent to England, France, and other parts of Europe, having been found of a very inferior quality, and, consequently, of insufficient value to justify a further prosecution of the enterprise.

AMERICAN SLAVES IN MEXICAN MINES.—It is said there are many American citizens who have been for years working in the Mexican mines, without the prospect of release. These unfortunate people were settlers in Texas or on the frontier, and being captured by the Mexican *Rancheros*, were carried into bondage, to work silver mines which the Mexican Government had pledged to English capitalists. Inquiries should be instituted to ensure their liberty in the event of peace.—*American Sun.*



BRISTOL AND POOLE HARBOUR RAILWAY COMPANY.—In the *Mining Journal* of the 10th instant, we made some remarks on the merits of this line, and endeavoured to show some of the advantages which would accrue from its construction. The above diagram at a glance indicates its relative position, with the several cities and towns of Somerset and Dorset, and with other railways in connection with the north of England, and the metropolis. The population, and agricultural and mining produce of the above counties, would of themselves ensure a return sufficient to pay a fair interest on the capital; but the great resources which are looked forward to, in the construction of this line, are the forming a short, rapid, and certain transit across the western peninsula of England, uniting the Bristol and English Channels; instead of a long, tedious, and always uncertain voyage round the Land's End. When it is stated that there are 4000 vessels engaged trading to the western ports, including those of the Bristol Channel, averaging 130 tons each; and that the voyage from Poole, round the coast to Bristol averages 10 days, while all descriptions of goods can be transmitted by railway in four hours—there can be but one opinion as to which the shippers of goods would prefer; nor will the change prove injurious to the shipping interest: on the contrary, it will be greatly benefitted, enabling five voyages to the northern parts of Europe to be made for every three now effected; and, by means of the electric telegraph, the rapid travelling of the present day, and other circumstances, advantages and conveniences will be afforded which cannot at present be forseen. We have before remarked on the connection it will establish between the mineral districts of South Wales, Staffordshire, the Midland Counties, and the north of England, with the southern ports; and we believe the line to possess so many palpable advantages, and to be so highly promising of a large return to the shareholders, and a vast public convenience, that we strongly recommend the undertaking to the unbiassed consideration of those who would speculate or invest in this description of property.

THE METALLURGICAL TREATMENT OF ORES.—No. XI.

The charge for one cask is—10 cwts. of ground ore; 3 to 5½ cwts. of water; and 60 to 70 lbs. of wrought-iron scraps. Water is added, until a pasty mass is formed with the flour, which gives the mercury added an opportunity of spreading throughout its whole mass: neither too much nor too little must be added, for fear the mercury should merely run round withinside the cask, and not mix entirely with the pasty mass within. The wrought-iron is employed to decompose the chloride of silver formed during the roasting—the affinity of the chlorine for the iron being greater than for the silver, the latter combines with the mercury as it is set free. Above each barrel is placed a leaden vessel, capable of containing about 3 cwts. of water. These vessels are filled by a common tube, and from them the necessary quantity of water for the amalgamation is run. The ore is then placed in the barrels by means of a funnel, into which passes a leathern tube, communicating with the box above, in which 10 cwts. of ore are placed. This done, the barrel is closed and agitated for about one hour before the introduction of the mercury, so that the water and the ore may be perfectly mixed with each other. The whole is examined from time to time, to ascertain if the mass be of a proper consistency, if not, more water or ore must be added. This operation being terminated, the mercury is added. At the side of the amalgamation rooms are cast-iron vessels, each capable of holding about 5 cwts. of mercury; each vessel is connected with an iron tube passing between two ranges of barrels, from this tube the mercury passes into smaller ones, by means of which it pours into the barrels; each vessel supplies mercury to 10 barrels. The barrel is then carefully closed with the bung, and it is set in motion, so that it revolves from about 18 to 20 times per minute. It is necessary to observe, from time to time, if the mass has the requisite consistency, because during the operation it becomes slightly more liquid, and its temperature rises generally from 104° to 122° Fah.

The operation of amalgamation is carried on at ordinary temperatures. It may be rendered more rapid by artificially increasing the temperature; but the trials made by this method in 1827 show that the loss of mercury is 8 or 10 times more than by the ordinary process. It is known, for instance, that mercury passes into the state of oxide in a damp atmosphere when in a state of very minute division, more especially when aided by heat. From these circumstances this plan was given up. During the time the barrels are in motion, which lasts from about 16 to 18 hours, the following chemical reactions take place:—The chloride of silver is decomposed by the iron; the reduced silver amalgamates with the mercury; at the same time the copper contained in the ores also combines with the mercury. The principal products, formed during this operation, are—the mercury, combined with the silver, and the residuum, properly so called, which is nothing more than earthy matter mixed with variable proportions of chloride of iron, sulphate of soda, common salt, water, &c. In order to ascertain if these residual matters are completely deprived of silver, an assay must be made; for this purpose a portion of the mass, from the centre of each barrel, is removed by a spoon, and thrown into a deep plate, in which it is diluted with water, the globules of amalgam, which are deposited, are separated from the earthy matters with the greatest possible care: they are dried, and assayed for their value of silver. When it amounts to one for 3500 or 4000 of matter, the amalgamation is said to have succeeded, and the following operation is commenced:—The barrels are filled with water, so that the mercury can collect together; they are turned slowly for one hour, stopped, and the amalgam run off by a wooden tap into a leathern tube, from whence it passes into a wooden gutter, and through wooden tubes into the amalgamation chamber. The liquid amalgam thus obtained contains a large excess of mercury, which can be very readily separated; for this purpose it is passed through sacks made of a kind of canvas ticking *(coutil)*, suspended above a stone trough; the greater part of the mercury runs off, and there remains in the canvas bag a solid amalgam, which is known as "dry amalgam." The silver is concentrated in this last product. The amalgam thus prepared contains—Mercury, 82·35; silver, and other metals, 17·65 = 100·00. The mercury, which filters through the bag, also contains silver, and is reserved in the stone trough for the next amalgamation. The residuum of the barrels, being very liquid, runs off by means of a large trench, from whence it pours into the washing tubs, which are immediately below the amalgamation rooms. These *residua* are washed, in order to obtain any mercury, or, rather, amalgam, which may yet remain mechanically suspended.

According to Berthier's analysis, these residual muds consist of—Products insoluble in acids, 44·6; peroxide of iron, 38·0; sulphate of alumina and lime, 1·8; oxide of copper, 1·0; oxide of lead, 2·8; salts soluble in water, 10·0 = 98·2. It gives, by assay, only 0·0002 of silver, which proves the perfection of the process employed. The previous grinding of the ores occasions a very considerable expense, which it would be expedient to avoid, by employing for this purpose the force, which it is necessary to impart to the amalgamation barrels. It has been thought that the pulverisation could be effected by placing in the barrels balls of iron, and then charging with the screened and roasted ore, as usual. Trials on the large scale can alone prove the practicability of this method; it is, however, very reasonable.

8. *Distillation of the Amalgam.*—The amalgam, obtained by the processes already described, is treated in the distillatory chamber—this chamber is vaulted. In this operation there is much improvement to be desired. It is a true distillation, *per descensum*, by an intermittent process, which occasions a great loss of fuel and labour, both of which it is very easy to avoid. The distillation is carried on in long cast-iron bells, placed on a tripod, in the centre of which is a raised iron stem passing into the bell. On this stem are six bordered dishes of iron, one above the other, in which the amalgam is placed. The tripod is placed in an iron vessel, resting on a large strong wooden vat filled with water. The hearth of the furnace is of iron plate, through which passes the distillatory vessel, it very nearly reaches the vat filled with water.

GUN COTTON APPLIED TO MINING PURPOSES.

In the *Mining Journal*, of last week, we inserted a letter from a correspondent, signing himself "Tamper," on this interesting subject, in which he endeavoured to show, that it never can be used economically in blasting, it being (even allowing it double strength) twice the cost of gunpowder. As Mr. R. Taylor, in the account given by him, before the annual meeting of the Royal Geological Society of Cornwall, of his experiments in various mines, gives such different results, we shall, in giving that statement, just compare notes, and it will be seen that, not only is the cotton as economical in use, although three or four times the price of powder—as *one-fourth* (and not *one-half*, as stated by "Tamper"), by weight of the powder used, is sufficient—but it is free from all pernicious consequences afterwards; and instead of the men not being able to return to their work after a blast for an hour, as is the case with gunpowder, they can enter immediately after the cotton has exploded—thus the air of the levels is never deteriorated, and an amazing amount of time and labour saved in the aggregate. Another advantage of the explosive cotton is, that it is never injured by water, and has lain six months in it, and, when dry, recovers its explosive properties; it can thus be kept in tanks for security, and without any danger of accidental explosion. Another error, which our correspondent appears to have made, is in its compressibility, stating "that 4 ozs. of powder occupies 8 cubic inches, and that 2 ozs. of cotton, *considerably compressed*, occupy 27 in." Now, Mr. Taylor states, that he could compress the cotton into a *much smaller space than gunpowder*; and thus leave more room for tamping; and, as to spontaneous combustion at 130°, there appears no danger of the kind. We will, however, allow Mr. Taylor to speak for himself; he says:—"The first experiment was made in a granite quarry near Penryn, at Spargo; and he and Professor Schönbein were accompanied on that occasion by Messrs. R. W. Fox, C. Fox, B. Fox, Mr. Hoskin (the owner of the quarry), and several other gentlemen. The surprise and incredulity of the workmen were very great, and highly amusing. When he charged a hole with some of the cotton, they thought he was doing a very absurd thing, and one of the men offered to sit on the hole for a pint of beer; but he advised him to see the result of the first explosion, before he tried that experiment. They then had two holes prepared; the quarrymen weighed out the quantity of powder required to charge their hole, and he weighed out one-quarter of that weight of the cotton. Their charge (said Mr. Taylor) was fired, and produced its effect completely; our charge was fired, and, to their great amazement, tore the rock to fragments—in fact, doing more than was required, the charge being too great. They had next two strong holes bored in a very compact part of the rock. It required 13½ ozs. of powder, and we charged the corresponding hole with 3 ozs. of the cotton; their charge was fired first, and did its work well,—and the cotton being fired, did its work well also, the men saying that it could not have been done better. In another experiment, with a smaller quantity, he found that one-sixth part of the cotton did its work; but he did not place much reliance upon that result, as possibly the men might have overrated their charge. They tried some other experiments with the use of sand and wedges, and he might say that the whole of the experiments were uniformly successful when the charge of cotton was equal to one-fourth the requisite weight of powder. So far the strength of the cotton was demonstrated, but he was then anxious to make experiments in regard to its effect on the air of the mine; and the iron mine of Restormel was selected, on account of its being easy of access, so that the Professor might accompany him without fatigue. From its being in hard ground, and having the adit level driven a considerable distance into the hill, the end of that level was very close, and presented great difficulty in the escape of the smoke of gunpowder. They first tried an experiment in the extreme end of the adit level, six or seven hundred fathoms from the entrance. The miners prepared two holes, but they did not use gunpowder on this occasion, as it would have interfered with their experiments. They asked the men to produce the quantity of powder required for those holes, and then weighed first one quarter and then one-sixth part of the weight of cotton; they fired the two holes, which tore their ground, and the miners said it was quite satisfactory. They told him that, if powder had been used, they could not have gone into the place for three quarters of an hour; but (said Mr. Taylor) we went in instantly, the two captains, Professor Schönbein, and myself. We experienced no inconvenience whatever, except from the safety fuse, and that was no inconvenience to the men. One quality of the cotton was of great importance to miners; it was not so easily affected by the damp as powder. It was not permanently injured by being wetted, but might be washed and dried, and its explosive power be the same as before: it had been kept in water six months without injury. It might be kept in magazines and tanks in perfect security; and it was an important fact, that there was no danger in the progress of its manufacture,—for, until the process was completed, it was not explosive in any way; and no part of the process involved any danger. He had no sort of knowledge of what the composition was, except that it was a wool basis. With regard to expense, he was assured that a given quantity of power could be obtained probably for less; but weight for weight it would be more expensive than gunpowder." [A candle was then lighted, and Mr. Taylor, producing a small quantity of the cotton, held it over the flame. It instantly exploded; and being No. 2 of the cotton, produced a slight smoke. Mr. Taylor then procured a sheet of clean white paper, on which he exploded a small quantity of the cotton, which left some brown powdery particles. This, he said, would not be the case with the No. 1 cotton, which was intended to be used in fowling-pieces and rifles. The President, who was close to Mr. Taylor, said he did not perceive any smell from the explosion.]—We thus see that Mr. Taylor's experiments, and "Tamper's," produce widely different results: the former proving that it can be used most economically, the other that it cannot: future experiments will show which is right. With such a detail, however, given before a scientific body, of experiments made by several scientific men, our opinion is certainly in favour of Mr. Taylor's statement. We have here given "Tamper" "a clear stage, and no favour,"—but we cannot help asking, is he interested in the success of gunpowder?

DESCOBERTA GOLD MINES, BRAZILS.—At the meeting of the Geological Society of Cornwall, J. N. R. MILLETT, Esq., read a notice of the Descoberta Gold Mine, by William Jory Henwood, C.E., F.R.S., F.G.S., Chief Commissioner of the Gongo Soco and Catta Preta Gold Mines.—This ancient mine is about seven miles from the small town of Caethe, and 60 miles N.N.W. of Onro Preto, on the southern side of the high insulated mountain of Piedade. The mountain consists of a schistose rock of specular iron ore and quartz, alternating in very thin laminæ, which bear about N. and S. (magnetic), and dip towards E. Near Descoberta, some beds contain oxide of manganese and mica, and afford traces of gold. The ferruginous rock is overlaid by clay slate, which occasionally contains great quantities of mica, and varies in colour from brick red to pale buff, the darker varieties being sometimes mottled with white. It is very soft and fissile; and the lamination, although in some places much contorted, is generally regular, bearing from 10 to 20° E. of N., and dipping from 60 to 79° towards the E. This slate contains numerous nodules and vein-like masses of quartz, which are for the most part coincident with the lamination, although sometimes they intersect; it is seldom, however, that one portion of the same quartzose body runs parallel to the cleavage planes of the rock, whilst another is transverse to them. Some appear at the surface; others do not "crop out," but are discovered at some distance beneath! all, however, within very short limits (both in length and depth) alike and invariably dwindle and die away. Their dimensions are very irregular; and their numerous intersections afford neither displacements, heaves, nor any other of the phenomena which are sometimes considered indicates of relative antiquity. In the paler coloured slate, the quartz is milk white; in the darker varieties, it is ferruginous (gossan); both are auriferous, but the more deeply tinted portions are by far the richest. Gold also occurs in the slate; but so sparingly that it would not repay the cost of extraction, were not the quartz and slate so mixed as almost to defy all attempts at separation. The gold is of the very best quality; but being naturally somewhat alloyed with palladium, it has a slightly greenish tinge. The mine is the property of a rich and influential landed proprietor, who works it only when his labourers are not employed in agriculture—the invariable custom of the Brazilians; and notwithstanding it is within 20 miles of several establishments in which the recent improvements in European mining have been introduced, it is worked in the primitive and costly manner prevalent in other parts of this province.—At the conclusion of his paper, Mr. HENWOOD stated that circumstances forbade his offering a more elaborate communication; he would have reserved it until leisure permitted him to add other important details, but that he was not willing to omit any opportunity of testifying that time and distance had not lessened his warm and anxious wishes for the society's prosperity.

IRON.—Fourcroy says, that iron is the only metal which is not noxious, and whose effects are not to be feared. Indeed, its effects on the animal economy are evidently beneficial. The ancients had an idea, that iron was poisonous, and that wounds made with iron instruments healed with difficulty. Hence, after the expulsion of the Tarquins, Porsenna stipulated with the Romans that they should not use iron, except in agriculture.

IMPROVEMENTS IN THE ANEMOMETER.

At the last meeting of the British Association, Dr. ROBINSON gave an account of a Modification of Dr. Whewell's anemometer, for measuring the velocity of the wind.—He explained to the section verbally the nature of the various anemometers hitherto employed to measure the *force* of the wind, and distinguished Whewell's from them, as a measure merely of comparative *rate*. The fault of it was, that the instrument gave no absolute measure of velocity in miles per hour, and that it reduced the rates to no standard; and, therefore, the observations made at one observatory were not capable of comparison with those at another. He had applied an observation of Mr. Edgeworth, who was a family connection of his own, to the construction of such an addition as would render Whewell's anemometer more perfect in this respect. He mounted on a vertical axis three or four arms, carrying hemispherical cups at their extremities. These cups opposed much less resistance to air acting on the concave sides than on their convexities, and in such ratio that uniform revolution was produced at the rate of *one-third* of the velocity of the wind. From this measure, which would be the same for all sizes of the instrument, and at all places, the mean velocity of the wind during a given period could always be obtained in miles per hour. He concluded by reading some of the determinations of his own instrument at the observatory at Armagh.

We may here add, in answer to a question from a correspondent at Thornley Colliery on this subject, that we consider Dr. Robinson did not name "the distance from the centre of rotation, at which the revolving arms or cups are equal to one third the velocity," supposing it would be perfectly understood that the point would be where the cups themselves are placed—viz., "at the extremities." It appears to us, that the length of the arms is immaterial; as, be they long or short (supposing the force of the wind the same), whatever extra power is gained by length on one side, is counterbalanced by perfect equipoise on the other—the "uniform ratio" being in the proportionate less resistance to the wind of the convex, than the concave side of the cups; and thus three times the number of feet the cups revolve per minute, multiplied by 60, will give the number of feet per hour, at which the wind is travelling.

MINERAL WEALTH OF NEW ZEALAND.—The ores of the northern part of the north island of the New Zealand group, if judiciously managed, may yet rival those of South Australia. Letters have been received by the directors of the North British Australasian Company, from their local manager, dated Kawau, the 17th April last, from which the following is an extract:—"The miners are sinking a new shaft, and the appearances of the ore is splendid. They have been putting out lately at the rate of 10 to 12 tons per day, and have sent to Sydney, for shipment, 100 tons, besides some sent a short time before (say 200 tons). A vessel is to leave New Zealand in the month of July; we have already shipped 80 tons, and expect to get 50 to 80 more sent by her, at the rate of 30s. per ton to London." Kawau is, we believe, the island Kawhaw, of Arrowsmith's map: off Manakana, on the west side of the estuary of the Thames, on the same parallel of latitude as the opening between the south point of the Barrier Island and Cape Colville. Kawau is six to seven miles in length, and one to four miles in breadth. It has a safe harbour with good anchor ground, and water enough to float a vessel of any size. It is the property of the North British Australasian Company. Their manager, about two years ago, discovered great quantities of copper ore on the island. A cargo sent home, sold, at Swansea, on the 27th August, 1845, for about 20*l.* per ton; since that time 459 tons have been received averaging about 11*l.* 12s. 5d. per ton. These ores were not selected by a miner. The directors engaged Mr. Ninnis, an experienced mining captain, who arrived at Kawau about the beginning of the present year. By the 11th March he had set eight men to work on a very rich lode of ore, and an assaying-house was ready for use about the same time. The result of numerous assays has been an average of from 20 to 25 per cent.: some parcels were as high as 50 per cent. It is to these operations that the manager's letter, quoted above, relates: the miner's report is daily expected. The cargoes hitherto received have been sent by way of Sydney, at an expense for working and freight of 6*l.* per ton; from New Zealand direct the freight will not exceed 30s. per ton; it will be brought as ballast. The North British Australasian Company was formed in 1839, for the purpose of investing capital in land and other property in the Australian colonies. Besides the island of Kawau and its mines, the company possess from 12,000 to 15,000 acres of land in Australia, 30,000 sheep, about 2000 head of cattle, with horses, &c. They have this season received about 230 bags or bales of wool, producing about 5000*l.* The shares were selling in the Aberdeen market on the 10th instant, at 1*l.* 6s. 6d., or 6s. 6d. premium.

GLEN OSMOND MINES, SOUTH AUSTRALIA.—A communication respecting these mines, situated three miles from Adelaide, was sent to the Geological Society of Cornwall, by Seymour Tremenheere, Esq., who had obtained his information from a gentleman in the Colonial Office—the latter having had the statement transmitted to him in September, 1844, from a source admitting of no question of accuracy. The export trade of the colonists had been greatly increased, which was attributed to the productiveness of their mines. The importance of these mines depended on two causes. The colony being a wool-exporting country, the wool-ships, on account of the lightness of their cargo, were glad to take the lead and copper ores for ballast, at a merely nominal freight, which circumstance was considered as placing the mines upon almost an equal footing with those of Europe, and the land-carriage to the shipping-port also offered no difficulties. Another source of the mining importance of the country was attributable to the fact of so much ore being found on the surface. At the mines near Adelaide, blocks of several tons of the richest lead and copper ore had been dug out from the surface of the ground with nothing but a pickaxe; and for more than a quarter of a mile continuously, a lode had been followed up of this character, in which the metal protuded nearly 2 ft. above the ground, in the form of jagged detached time-worn rocks, so that it almost resembled a basaltic vein broken into large isolated masses.

MINERAL RESOURCES OF ALGERIA.—According to the report made by the commission, sent out by the French Government, to examine the mineral and other resources of this colony, it has been discovered that the cork tree might be very successfully planted, and would most probably thrive in great luxuriance; this would be a source of great profit, as at present the cork imported into France, England, and other northern countries, is chiefly from Spain. To carry this plan mto operation, the administration at Algiers has set a number of the military at work, in planting an extent of 2000 acres with the cork tree which requires eight years to arrive at maturity, after which it produces every year. This is intended for an experiment; but, if successful, it will be carried out on a large scale. M. de Lirae, who has passed two years in carefully studying the fertile banks of the Arrach, as far as the foot of Mount Atlas, to ascertain how far the soil would be propitious, for the cultivation of the mulberry tree, annatto, beet root, and sugar cane—states that it is more than equal to his most sanguine expectations. Beet root and sugar cane will grow together, the former equal to the best Silesian; and extensive sugar factories may, no doubt, be established on the banks of the Arrach, for its extraction both from cane and root. The Government are determined to encourage emigration to the greatest possible extent, for the population of the colony, and the development of its resources.

IRON MINES IN ITALY.—The intention of establishing railroads in the Roman States, has induced the Papal Government and the mine owners to test the iron ore of the Roman territory. For this purpose a quantity of ore has been sent to France, and smelted in the presence of MM. Costa and Potenron. The results are as follows:—The ore of Monte Leone and Gravelli gives from 30 to 40 per cent of iron, and that of Tolfa 60 per cent.; whereas the most productive mine hitherto known in other parts of Italy—viz., that of the Island of Elba, yields only 50 per cent.—*French paper.*

GOLD IN SOUTH CAROLINA.—By a letter from Mr. R. Thomas, dated at Messrs. Nuckolls and Norris's mine, in the South Carolina gold region, Sept. 28th, we learn that they are getting out ore worth $5 per bushell.—One of the mines is earning from $75 to a $100 per day. There was frost at the mines on the 28th ult.—*American Sun.*

LEAD MINES ON THE SOUTH EAST COAST OF SPAIN.—A paper was furnished to the Geological Society of Cornwall, by Mr. James Michell, on the argentiferous lead mines of the Sierra Almagrera on the south-east coast of Spain. The writer gave some account of the workings of some ancient mines in the mountains, and thought it probable that they were closed up after the celebrated edict of Philip of Austria, who sought thereby to obtain miners, to explore the vast resources of the American mines, which were opening about that period. The mines of Spain, with the exception of the quicksilver mines, had, therefore, lain dormant for centuries, until in 1839, a person named Perdigou accidently stumbled over a small vein of galena on the Sierra Almagrera. This led to the discovery of a very rich lode, which was eventually worked by Julian Lopez and other parties, and which during the last five years had no equal in Europe for productiveness, and been excelled by few in America. The lead contains 400 ounces of silver per ton, and no quartz has been discovered in any part of the lode. The vein runs into six mines, giving a length of orey ground of 230 fms.; and from October, 1830, to the 31st of December, 1845, the net profits divided between the respective shareholders in these mines was upwards of 1,350,000*l.* sterling. The general cost of working was 7 per cent. only on the value of the mineral as sold on the mines. The base of the mountain in which this productive vein occurs is composed of a deep blue friable clay slate, contorted, broken, and in every variety of confusion. In this part few metallic veins are perceptible, but there is much quartz in nodules and masses. On the north side, sand stone and sand, in stratified layers, similar to that of which the plain is composed, rest upon and incline with the clay slate. On ascending the mountain, the stratification becomes more compact, uniform, micaceous, and laminar, ultimately passing into compact micaceous schist, with its laminæ dipping S. 15° E.

RESPONSIBILITIES OF PATENTEES.—An amusing instance of the supposed extent of liability, incurred by parties patenting articles for domestic use, came under our notice during the week. A patent corkscrew had been purchased of a cutler in Fleet-street, the worm of which in the course of use became broken; it was sent to the maker for repair, for which he charged 1s.; the applicant was astonished at the demand, and at first refused to pay, observing, as she pointed to his name on the handle, "why, it's your own patent, and you are *bound to keep it in repair.*" A pretty predicament some of our patentees would be in were such opinion held good in law.

NAIRNE'S NEW MODE OF PROPULSION ON RAILWAYS.

In the *Mining Journal* of the 17th inst., we gave a short description of this novel mode of propulsion, and we now proceed to detail at greater length the principles upon which it acts, and the cost of working. Along the whole length of a railway is laid between the up and down lines a tube of about 8 in. bore; and, at the distance of about 10 miles apart, fixed steam-engines, or, where it can be obtained, water-power—these are constantly in action, exhausting the tube, to keep at all times a partial vacuum therein. Above this pipe, and at about the distance of 120 yards from each other, horizontal cylinders are fixed, bored and fitted with pistons and valves, similar to those of a steam-engine; the eduction pipes of these cylinders open into the tube, and the pressure of the atmospheric air on either side of the piston, causes them to work in the same manner as if steam were admitted. Each of these cylinders (which the patentee calls "propelling engines") gives motion to a *wheel*, the centre of which is in the middle of the space between the up and down lines, and the rim reaches to within 1½ in. of half the distance between the rails; at the under side of these wheels, there is a flange, which reaches to within ½ in. of the middle of the line on each side. Opposite the centre of each of these wheels, and generally both on the up and down lines, a smaller wheel is placed, the hem of which is placed in every respect the same as the hem of the large wheel; they are placed in forks on the ends of levers, having an advantage of about 1 in 12, moving on fulcrums, and pressed against the hem of the large wheel by strong springs—thus bringing in contact the flanges of both wheels, and leaving an open space above of 2½ in. wide. A long bar of wood, called a keel, and jointed together in lengths of from 18 ft. to 20 ft., to allow it to bend to curves and inclines, is hung under the train, right in the middle of the rails, and should be two-thirds the length of the distance between the cylinders; this keel is tapered at the ends, for the purpose of entering the space between the wheels, which grip it, and draw it between them, in the same manner as a bar of iron is drawn between the rollers, and, consequently, the train with it. This general description will be readily understood; many other minor details could only be explained by diagrams. With respect to the cost of haulage by machinery of this description, the inventor has made a comparative estimate with the official returns of the Liverpool and Manchester line, amounting to 29,607*l.*; and taking, as he states, every possible *item* of cost, usual repairs, and allowing 10*l.* per mile for incidental casualties, he makes the whole cost for the same number and weight of trains, 4226*l.*—thus showing a yearly balance in favour of the new mode of 25,381*l.* per annum, or, at 5 per cent., equal to a capital of 507,620*l.*, or 16,921*l.* per mile. The cost of the upper works of a line, on this system, he estimates at 4913*l.* 15s. 7d.; and for altering an old line, 2967*l.* 1s. 4d. per mile. With respect to the objections which may arise as to expense in construction and repair, complexity in detail, smallness of exhaustion tube, &c., he meets and answers them all with candour and perspicuity. We have not room to go through them, but, as a specimen, give his concluding paragraph:—"I have impartially examined the whole matter, and I cannot see any objection at all insurmountable, or such as to hinder the working of the scheme proposed—while, if successful, it has many advantages over the present mode. Since it has been proved that a partial vacuum gives sufficient power, at the distance of four miles, to take along a piston, with a train after it, there can be no doubt that it will give the same power to well-fitted pistons working in well-bored cylinders; and when it is considered that, in this case, both pipe and propelling engines can be made almost absolutely air-tight, and that the pistons have only to travel at one-sixth of the speed of the train (and hence only at one-sixth of the speed of the running piston in the present atmospheric railway), it will be seen that the serious objections to the atmospheric plan do not apply here; and as to the property this invention has of working a double line with the same machinery, without the possibility of risk or confusion, it is in this respect superior to any thing which has been proposed."

THE MENAI TUBULAR BRIDGE—STRENGTH OF TUBES.

Mr. W. Fairbairn, and Mr. E. Hodgkinson, have both been engaged in extensive and independent sets of experiments, to ascertain the best form to give to the beams, to be employed in the construction of the tubular bridge, by which the Chester and Holyhead Railway is to be carried over the Menai Straits. Mr. Fairbairn's experiments may be said to have only established this general fact—that hollow beams of wrought iron are about three times stronger than solid beams of the same form. Mr. Hodgkinson's experiments had, for their special object, to ascertain what sort of hollow beam is the best—oblong, or square, or cylindrical. From the results which are shown in the following table, it will be seen that the cylindrical are (as might have been, and was, in fact, anticipated by Mr. Hodgkinson) the strongest of all, and the square next in degree:—

CYLINDRICAL TUBE.

Weight of Tube.		*External Diameter.*	*Greatest Resistance.*
47 *lbs.*	10 *ozs.*	2·34 *in.*	31,828 *lbs.*
45	15	2·99	37,356
59	0	4·05	47,212
64	4	4·06	49,900

RECTANGULAR TUBE.

48	14½	4·1 + 4·1	19,649
65	8	8·15 + 4·1	28,289
82	0	8·1 + 4·1	43,673
91	1	8·0 + 8·0	27,545

The rectangular tubes were all of plates ¼th of an inch thick, and all simple rectangles, except the last but one, which had a partition in it, making it into two divisions. On the 14th inst., the railway company contracted for the construction of the first portion of this bridge, which is to be called the Britannia. It is 450 ft. span. The greatest span of any *rigid* bridge hitherto executed is 240 ft.—*Mechanics' Magazine.*

WHEELER'S LIFTING PLUNGER PUMP.—We have received a description of an ingenious invention, for insuring all the advantages of the common lifting and forcing pumps, but avoiding a great deal of the friction, and requiring much less power to work it. Instead of a working barrel and piston-valve, as in the common pump, there is a flange round the centre of the working vessel, to which is soldered a hoop of brass, cut at intervals, so as to form a complete circle of ∩ shaped springs; within these springs is fastened a band of leather, which is thus kept constantly pressed against the piston or plunger. This plunger is a hollow brass or iron vessel truly turned on the outside, open at bottom, and of sufficient length to be always within the grip of the springs at every part of the stroke, at the top of this plunger, as well as at the bottom of the barrel which contains it, are flat valves opening upwards, in the usual manner; and thus it has all the properties of the common lifting pump, with many more advantages. The force pump is on the same principle, with this difference, that the flange is on the top of the working barrel, there are two circles of springs and leather collars, and the plunger is a solid cylinder of metal, instead of being a hollow piston. These pumps are registered, and what the inventor claims is, the expanding spring hoop, diminishing friction, and rendering pumps of all kinds easier to work, and of much greater durability.

RAILWAY SPEED.—Mr. G. Stephenson has several engines ready which are to accomplish 60 miles an hour. The Brighton Company have also two which are to make the journey of 50 miles within the hour.

SUBTERRANEAN TELEGRAPH THROUGH THE METROPOLIS.—During the last few weeks considerable interest has been excited in the scientific world and the several railway companies whose lines run into the metropolis, by the announcement that the Electric Telegraph Company intend forthwith to establish a central telegraph station at the company's depôt in the Strand, by means of which communication will be obtained from one point to all parts of the country. In the company's act of incorporation, the 35th clause empowers them to lay down, and under any street, any pipes or tubes not being of larger size than 3 in. bore, for conveying or conducting the wires of the electric telegraph. In pursuance of these powers they intend to extend the wires from the several railway stations in London in the way described by their Act of Parliament under the streets of the metropolis. The extension of the telegraph on the South-Western Railway will be first commenced. In the first place, the wires will undergo a process of coating so as to preserve them, they then will be fixed in metal tubing, which will be laid under ground about 18 ins. from the surface. Every quarter of a mile proving posts, which in size and appearance will be similar to the present street posts, will be erected, thereby ensuring the proper connection of the wires. On the sites being fixed, the telegraph will forthwith be laid down. In the course of three months it is anticipated that it will be completed. A much longer period, however, will transpire ere the wires on the other lines are extended. Lately, the Government, we are informed, have directed the company's officers to report the practicability of extending the "main" telegraph to the principal depôts. The result has not as yet been ascertained.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Grand Union Canal Company—office, at Eleven.
TUESDAY.....London and County Railway and General Investment Co.—offices, One.
WEDNESDAY..Wheal Trevenna Mining Company—Liskeard.
THURSDAY.....Wheal Fortescue Mining Company—Tavistock, at Two.
Bank of Ceylon—Bank, at One.
FRIDAY.....Devon and Courtney Consols—on the mine, at Twelve.
Great Western Railway—Paddington Station, at One.
South Wales Railway—offices, at One.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

PATENT KAMPTULICON COMPANY.

A special general meeting of the proprietors was held at the offices of the company, No. 18, Cornhill, on Monday, the 26th inst.

W. G. CLARKSON, Esq., in the chair.

The meeting, which was attended by a numerous body of proprietors, was rendered special, for the purpose of receiving a report of the committee appointed to inquire into the present state and prospects of the company—and, further to approve, or otherwise, of an application to Parliament, for an Act of Incorporation.

The CHAIRMAN having adverted to the objects of the meeting, and to the report which had been prepared by the committee, which would be then submitted to the proprietors, expressed the satisfaction he, in common with his brother directors, had experienced in perusing that report. The report, which entered fully into the present position and prospects of the company, was then read; from which it appeared, that the orders already received, and the general application of the kamptulicon to the purposes for which it was so peculiarly adapted, at once secured to the company a large remunerative return on the capital embarked—while that which might further be placed at the disposal of the directors, would manifestly yield far increased returns, from the circumstance of the establishment and plant being equal to increased supplies, while the demand was daily increasing; and, furthermore, the expenditure being comparatively confined beyond that of the *material* required, which on its manufacture at once yielded a profit. To adopt the words of the report, we find it to state that the material invented is capable of preventing the concussion from cannon-shot on iron steamers or other vessels, and also of closing over the holes or orifices thereby caused; while an invention by Mr. Walter, of applying it in the sheathing of vessels generally, has established its value and importance to the navy, and mercantile community, and which has been generally admitted by those who have subjected it to trial. There are other purposes of a more general character to which it is found to be applicable; and the committee, in conclusion, express their confidence in the value of the patent, and recommend to the proprietors the prosecution of the operations of the company, and the extension of its operations.

Mr. G. WALTER, having been called by some observations, expressed on the part of one or two shareholders present, stated, that it could not be otherwise than gratifying to him, and those friends who had associated themselves with him, to find that their efforts had been crowned with success, not only as affected the interests of the company in a pecuniary point of view, but also the public, who were intimately connected with, and interested in, the success of the company. He had no hesitation in saying, that the results of the experiments made, fully justified any assertion made by him, as to the satisfactory results which had been attained. The experiments made at the arsenal at Woolwich, were in the presence of some 40 or 50 officers of the highest rank, both in the army and navy.—Mr. LUND begged to bear testimony to the zeal and interest manifested by Mr. G. Walter and those connected with the company, on all occasions, while he expressed his confidence in the undertaking.

Capt. CROZIER, who had expressly attended the meeting, being a large proprietor, stated his perfect conviction of the excellence and importance to be attached to the sheathing proposed by Mr. Walter, and of the great advantages which might be contemplated from its application to her Majesty's navy, and the several steam fleets under the management of the General Steam, the Oriental and Peninsular, and other steam navigation companies. He had been present at the several trials at Woolwich, and was perfectly satisfied with the results.—A general conversation ensued, in the course of which Mr. Condell, Mr. Pettit, and others, took part—Mr. PETTIT, expressing himself, as a large proprietor, of the high opinion he entertained of the statements submitted to the meeting.—The resolutions, which will be found in our advertising columns, having been passed unanimously, the meeting separated.

A chemist at Berlin is said to have manufactured, upon the process of Prof. Schönbein, of Basle, an electrical paper, the property of which is much more explosive than that of cotton.

NEW INVENTION IN RAILROAD MACHINERY AND TRAVELLING.—A considerable improvement has just been effected in the application of a propelling power to carriages on railways by an officer at Vienna. It promises not only to supersede the atmospheric principle in moving heavy bodies up a plane of considerable elevation, but also bids fair to remove the possibility of a recurrence of those appalling accidents which are of so frequent occurrence both in England and France. The inventor is Capt. F. Freisauff von Neudegg, who formerly directed the military studies of the sons of the Archduke Charles of Austria; and so great seems to be the confidence inspired as to the complete success of the new principle, that the celebrated engineer Gunther, from whose locomotive factory the greater part of the engines on the railways of the southern states has proceeded, not only answers for its perfection, but has undertaken the construction of similar carriages at his own expense. The invention consists in making the advance of a whole train quite independent of the adhesion of the locomotive's wheels to the rail on which it moves, and by conveying the propelling power of the engine to the axles of all the carriages—thus making their advance depend on their own adhesion. Each carriage becomes thus a locomotive, distinguished from the real locomotive only by the circumstance that the motive power is not *independently* applied, but is imparted to it by the engine-carriage. The whole train is thus enabled to ascend any rise that may occur above the level of the railroad which the engine, if alone, would be able to ascend. The same officer has also invented a break, by means of which a train may be conveyed down-hill with perfect safety, and at an equal rate of speed. The resisting power is placed *without* the line of road. Carriages built on the principle of Capt. Freisauff have been tried at the great steam-engine factory of M. Gunther at Wien-Neustadt, and have been found to answer the most sanguine expectations. On a line having a rise of 1 in 40 they drew a dead weight of 600 tons at the (*minimum*) rate of one and a half German miles (eight English miles) an hour, and conveyed the same down an inclined plane with perfect safety.—*Literary Gazette.*

NEW HYDRAULIC CRANE.—This curious machine, the invention of W. G. Armstrong, Esq., of which a working model was last year exhibited by the inventor in the lecture-room of the Literary and Philosophical Society, Newcastle, has at length been completed, on a large scale, upon the quay of that town, and is now in full and successful operation. The hydraulic parts of the apparatus are all placed beneath the surface of the ground, leaving nothing in view except the jib and pillar of the crane, and the indicators by which the movements are governed. These indicators consist of pointers, which are turned by handles, and which traverse in a circuit upon index plates, inscribed with the different actions to be performed. One of these pointers regulates the lifting and lowering of the weight; another the turning of the crane; and the third determines the [illegible]nt of power to be applied. The extreme precision with which the m[illegible]n be managed by means of these indicators is a matter of general a[illegible]d renders the rapid movements of the crane consistent with the perfect safety even of the most fragile goods. The pressure in the street water-pipes, supplies the motive power; and we trust that this first step towards rendering town water-works available for mechanical purposes, as well as for domestic consumption, may eventually lead to the general introduction of the system which Mr. Armstrong has so perseveringly advocated. The present crane has been erected by Mr. Armstrong, under an agreement with the corporation, according to the provisions of which a number of additional cranes of the same description will have to be erected upon the quay; and little doubt can be entertained that the plan will also be applied for lifting goods into the numerous warehouses in the lower parts of the town. The rate of delivery by means of the new crane is, however, much too rapid for the tardy operations of the Custom-House; but we are glad to hear, that the principal authorities of that establishment, have expressed a disposition to alter their arrangements, so as greatly to accelerate the process of weighing and marking the goods. Mr. Armstrong has patented his invention (or, at least, such parts of it as were not previously published), but the specification is not yet enrolled.—*Gateshead Obs.*

An experiment of an interesting and valuable nature has been tried at Woolwich Dockyard, with a boat fitted on a plan submitted by Mr. Holdsworth, governor of Dartmouth, and for many years a Member of Parliament. The object of Mr. Holdsworth is to render any boat attached to ships-of-war, or other vessels, incapable of sinking in the most tempestuous sea, if the load is not greater than the calculation of displacement of air, the means adopted for supporting the boat and persons who may be in danger by shipwreck, or from any other cause. The boat experimented upon was one built at Woolwich, on a plan of Lord John Hay's, C.B., a present Lord of the Admiralty, and given to Capt. Headeron, C.B., commander of the *Sidon* steam-frigate, on his Lordship's ceasing to be Capt.-Superintendent. The boat measures 32 ft. in length by 5 ft. broad in the centre, and weighs 9 cwts. On the inside all round under the cross beams were fixed simply with cord, which could be effected in a few minutes, 10 hermetically sealed tubes, formed of vulcanized India rubber, each 6 ft. long and 5 in. in diameter, calculated to support 500 cwts. without sinking, although the boat was filled with water. The boat was taken from the boat-house to the basin at the west-end of the dockyard at 3 o'clock, P.M., and the experiments were made in the presence of Capt. Henderson, Capt. Crugg, Capt. Hunt, Col. Parker, C.B., Lieut.-Governor of the Royal Military Academy; Lieut. Gardiner, Lieut. Lysaght, Mr. Holdsworth, Mr. Brockenden, Mr. Elston, Master-Attendant; and Mr. Reid, assistant to the master shipwrights. On the boat being dropped in the water, a plug was withdrawn from her bottom, and she was allowed to fill with water. Three persons then stood over the ankles in water on her cross-beams, but they could not bring her down. 500 weight of iron was then lowered into her, which she supported with the greatest ease, and the three persons in addition stood on the edge of the side, sinking it about 6 in. under water, without the boat showing any inclination to sink, but righting herself with the greatest ease.

VALENCIA SLATE COMPANY.—On more than one occasion, in former Numbers of the *Mining Journal*, as far back as 1843, we have noticed the valuable slate quarries of the island of Valencia, in the county of Kerry, on the south-west coast of Ireland, which are the property of the Knight of Kerry (Fitzgerald), and have long been leased to Bewicke Blackburn, Esq., and worked by him to a considerable extent; but the demand in London far exceeding the supply, it is necessary to extend the workings to a very considerable scale of magnitude—to accomplish which it is, of course, necessary to employ a larger amount of capital, for the profitable investment of which a very wide field is here opened. From personal inspection of the slate, we can vouch for the extraordinary quality from these quarries; it is perfectly homogeneous in texture, impervious to water, unaffected by acids or oils, produces the largest slabs of sawn slate to be obtained in the market, and its strength is such that, in some experiments, on the strength of various stratified bodies ordered by the Board of Ordnance, it was found that, while flags of strong paving stone, fractured with a weight of 2 cwts. 2 qrs. 22½ lbs., slabs of Valencia slate of the same size and thickness, bore a weight of 11 cwts. 1 qr. 25 lbs. Slabs are obtainable from half an inch to 6 inches in thickness, and are most admirably adapted for basements, coolers, bins, oil and water cisterns, salt stores, sugar-houses, butcher's and fishmonger's stalls, slaughter-houses, &c.; half inch slabs, finished in a superior manner, have been extensively used for skirting, and the thicker descriptions for chequered hall pavements, contrasting beautifully with Portland stone. The entire over-burthen to a large extent has been removed, and the quarries are now being worked in the solid portion of the perfect rock, which may be said to be inexhaustible. The royalty payable is in an inverse ratio to the quantity raised; and in every case the larger the quantity raised, the lower would be the cost, and the profit be proportionally increased. Sawing apparatus is already established on the quay at Valencia; every facility exists for economical transit and shipment—and there is little doubt that capital, judiciously employed in a large extension of the works, would make a large and highly profitable return. It is proposed to raise 100,000*l.*, in shares of 10*l.* each, payable by instalments; and, as soon as the output reaches 10,000 tons a year, to establish a London depôt, and agencies in the manufacturing districts. The proposed extension of the works will also do much to ameliorate the wretched condition of the population of the district, by opening out a larger field for employment than at present exists.

AMERICAN IRON TRADE—THE MAHONING WORKS.—We are informed, that these new and extensive works, situated at Poland, on the Mahoning River, Ohio, the property of Messrs. Wilkeson, Wilkes, and Co., are now in full operation. We have before described this as the first American furnace in which pig-iron has been made with raw bituminous coal: this object was long sought to be accomplished by these enterprising gentlemen, and they are justly entitled to the honour of being the only ironmasters in the United States who have conducted this often-tried and important experiment to a successful result. The iron made by them by this process is said to be fully equal to the best Scotch pig, being made from as good ore, with a better quality of coal, and smelted in precisely the same manner. These works were one year in construction, and are very extensive—being calculated to afford employment to 200 men.

PREPARED CHARCOAL.—An improved apparatus has been constructed by Mr. L. Jones, of Chester, for which he has obtained a patent, for employing currents of air to separate the fine from the coarse particles of charcoal, or charred peat, while grinding the same—which fine particles may be employed as a substitute for vegetable black and lamp black, or as a substitute for black lead for lubricating machinery. The machine employed for the purpose is a close mill, from the top of which a pipe extends to a rotary fan, connected by another pipe, with a chamber 30 ft. long, 10 ft. high, and 10 ft. wide: the top, one side, and one end, are composed of calico stretched on light wooden framing; and the other side and end are formed by a wall. The action of grinding causes the finer particles to rise in the mill, and to be carried off by the currents of air into the long chamber, where they will be deposited on the floor and walls; and the powder will be of different degrees of fineness, according to the distance from the entrance of the chamber to the place where it is deposited.

DIED,—On the 18th inst., at Thornbury, in his 91st year, J. Hume, Esq., the celebrated practical and scientific chymist, and corresponding member of most of the learned societies of Europe. His numerous valuable discoveries will long be remembered as benefits to mankind.

CLARENCE RAILWAY.—The HALF-YEAR'S DIVIDEND on the GOVERNMENT LOAN SHARES, at 4 per cent., and the HALF-YEAR'S DIVIDEND on the FIRST-CLASS PREFERENTIAL SHARES, at 6 per cent. due respectfully on the 1st November, 1846, will be in course of PAYMENT after that day, at the company's offices, 80, Old Broad-street, London.

By order of the committee of management,

Oct. 23, 1846. CHARLES BENSON, Secretary.

YORK AND LANCASTER RAILWAY.—FINAL NOTICE.

—All APPLICATIONS regarding the AFFAIRS of the company are to be made at the offices of the solicitors, Messrs. Chaundler and Westwood, 8, Gray's Inn-square, between the hours of Twelve and Four o'clock, on Mondays and Thursdays.

Oct. 20, 1846. By order, SAML. HOLDSWORTH, Secretary.

EAST LINCOLNSHIRE RAILWAY.—TENDERS FOR IRON RAILS AND CHAIRS.

—The directors are prepared to RECEIVE TENDERS for ONE THOUSAND SEVEN HUNDRED TONS of IRON RAILS, and SIX HUNDRED TONS of IRON CHAIRS.—The sections of the rails, and drawings and models of the chairs, may be seen at Mr. Fowler's offices, 13 Abingdon-street, London, where all further information may be obtained.—Louth Oct. 29, 1846.

EDINBURGH AND NORTHERN RAILWAY.—CONTRACTS FOR RAILWAY WAGGONS.

—The Edinburgh and Northern Railway Company are ready to CONTRACT for the SUPPLY of about FOUR HUNDRED WAGGONS, for the conveyance of coal and other minerals—100 of these waggons to be chiefly of iron.—The drawings and specifications may be seen by intending offerers on application to Mr. Forsyth, at the engineer's office, 16, South Castle-street, from the 2d to the 10th November next inclusive.

Sealed tenders, addressed to the secretary, and marked "Tender for Waggons," will be received at this office, until noon of the 11th proximo.

No tender will be received for less than 50 waggons, and the directors do not bind themselves to accept of the lowest offer.

By order,

JOHN BALFOUR, Chairman.

19, St. Andrew-square, Edinburgh, Oct. 24, 1846. HENRY LEES, Secretary.

NORTHERN COUNTIES UNION RAILWAY.—INCORPORATED JULY 27, 1846.

Late Yorkshire and Glasgow Union and York and Carlisle.

Notice is hereby given, that all holders of Yorkshire and Glasgow Union, York and Carlisle, and Leeds and Carlisle, Scrip or Receipts, who have not already forwarded the same for registration, are requested to transmit them without delay to the office of the company, No. 1, Poet's Corner, Westminster, as the register of shares will be absolutely closed on the 14th day of November next.

And notice is hereby further given, that all scrip and receipts not transmitted on or before the said 14th day of November next, will be registered in the names of the original allottees, or be cancelled, at the option of the directors.

By order of the board, C. LOCOCK WEBB, Secretary,

Company's offices, 1, Poet's Corner, Westminster, Oct. 27, 1846.

NORTHERN COUNTIES UNION RAILWAY COMPANY.

—Notice is hereby given, that in consequence of the large number of Scrip sent in for Registration within the last few days, that the ISSUE of the SEALED CERTIFICATES will be delayed until the 14th day of November next.

Notice is also given, that in order to carry out the equalization of the deposit paid on the several shares in this company, a further return will be made on the original Leeds and Carlisle shares, and a return will also be made on the original York and Carlisle shares, sent in for Registration, if forwarded previous to the said 14th day of November; such returns will be payable on delivery of the sealed certificates.

By order C. LOCOCK WEBB, Secretary.

Company's Office, 1, Poet's Corner, Westminster, Oct. 27, 1846.

SHEFFIELD & LINCOLNSHIRE JUNCTION RAILWAY.

—TENDERS FOR IRON RAILS AND CHAIRS.—The directors are prepared to RECEIVE TENDERS for the SUPPLY of ONE THOUSAND FIVE HUNDRED TONS of IRON RAILS—each rail to be 15 feet in length, and weighing about 70 lbs. per yard. The exact process of manufacture must be described which it is proposed to adopt, so as to produce the best quality of iron in the rails. It is indispensable this description should accompany the tender; and the company will require from the party whose tender may be accepted, full authority for an agent to inspect the process of manufacture adopted at the works.

The directors are also prepared to RECEIVE TENDERS for the SUPPLY of FIVE HUNDRED TONS of IRON CHAIRS—the joint-chairs weighing about 30 lbs., and the middle chairs about 20 lbs. The chairs to be cast from best No. 2 pig-iron (without any admixture of Scotch), and run from the cupola, and must be manufactured by Messrs. Ransome and May's patent process.

The rails and chairs to be delivered on the line, at the town of Sheffield; and also on the Midland Railway, at or near Beighton—as ordered by the engineer.

The first cargo to be delivered in the first week in January, 1847; and afterwards in equal monthly quantities, until January, 1848, when the whole must be delivered.

The section of the rails, and drawings and models of the chairs, may be seen at Mr. Fowler's offices, 13, Abingdon-street, London, where any further information may be obtained.

Tenders to be delivered on or before the 17th Nov., at the company's offices, Sheffield.

By order of the directors,

Sheffield, Oct. 29, 1846. J. H. HUMFREY, Secretary.

CAMERON'S COALBROOK STEAM COAL AND SWANSEA AND LOUGHOR RAILWAY COMPANY.

At a Special Meeting of the proprietors, or shareholders, in Cameron's Coalbrook Steam Coal and Swansea and Loughor Railway Company, held pursuant to advertisement, at the offices of the company, No. 2, Moorgate-street, London, on Wednesday, the 14th day of October, 1846, JACOB MONTEFIORE, Esq., in the chair.

The advertisement convening the meeting having been read, the report of the directors was read and a statement submitted by the solicitor of the company; whereupon it was

Resolved unanimously,—

That the report submitted by the directors, and the recommendations therein contained, be received and adopted, and that the same be entered upon the minutes of the company.

Resolved unanimously,—

That the directors be instructed to have the book, called the "Register of Shareholders," authenticated, by the common seal of the company being affixed thereto, in terms of the 9th section of the Act 8 Vic., cap. 16.

Resolved unanimously,—

That N. i Cameron, Esq. | Captain E. N. Norcott
W. B. J. P. Cameron, Esq. | Captain Samuel Price
Sir A. P. Green | J. J. Rippon, Esq.
Jacob Montefiore, Esq. | A. H. Earle, Esq.
E. G. Winthrope, Esq.

be elected directors of Cameron's Coalbrook Steam Coal and Swansea and Loughor Railway Company.

Resolved unanimously,—

That Wm. Wellington Cooper, Esq., and Thomas Strelley, Esq., be elected auditors of the company.

J. MONTEFIORE, Chairman.

Resolved unanimously,—

That the thanks of the shareholders are due, and are hereby given, to the chairman, for his able conduct in the chair this day, and the lucid statements of the affairs of the company submitted to the meeting.

A. C. HOWDEN, Secretary.

2, Moorgate-street, Oct. 14, 1846.

PATENT GALVANISED IRON COMPANY.—At the Half-yearly General Meeting of the shareholders, held at the London Tavern, on Tuesday, the 20th October, the directors declared a dividend of 3 per cent. for the half-year ending 30th June, the same to be payable on and after the 16th November next.

The undermentioned resolutions were also unanimously adopted:—

Resolved—That the report and accounts now submitted be received, approved, and entered on the minutes.

Resolved—That John Folliott Powell, Esq., be elected a director of this company.

Resolved—That Manoel Joaquim Soares, Esq., be elected a director of this company.

Resolved—That a further call of £1 per share be made on the new capital of the company, created 28th October, 1845; and that the same be payable on 15th January next.

Resolved—That the directors be requested to take such measures for the disposal of the shares in the new capital of the company yet unappropriated, as they may think best.

Resolved—That the thanks of this meeting be presented to the directors for the ability with which they have conducted the company's affairs.

Resolved—That the thanks of this meeting be given to Messrs. Malins and Rawlinsons for their zeal and attention to the interests of this company.

Resolved—That the thanks of the meeting be given to Mr. Mathews for the valuable assistance he has rendered the company's managers.

Resolved—That the thanks of the meeting be given to the auditors, the Rev. Professor Hall, and D. R. M'Nab, Esq., for their services.

Resolved—That the best thanks of the meeting be given to the chairman for his able conduct in the chair this day.

S. VINCENT, Secretary.

3, Mansio-House-place, London.

TAMAR SILVER-LEAD MINING COMPANY.—At the Annual General Meeting of shareholders, held at the offices of the company, 44, Finsbury-square, on Friday, the 23d Oct., 1846, pursuant to advertisement,

J. GROUT, Esq., in the chair.

The advertisement convening the meeting was read from the columns of the *Mining Journal*. The report of the directors, with those of P. N. Johnson, Esq., and Captain Sprague, the resident agent at the mine—as also the accounts for the past 12 months, and balance-sheet—were submitted to the meeting, whereupon it was—

Moved by James Smith, Esq., and seconded by M. D. Lindo, Esq.,

That the report and accounts now presented to the meeting be received, adopted, and entered in the minute-book of the company.—Carried unanimously.

Moved by James Winstanley, Esq., and seconded by J. Smith, Esq.,

That the cordial thanks of the meeting be given to the chairman and board of directors, for the services rendered by them, and the zeal manifested in promoting the interests of the proprietors.—Carried unanimously.

Moved by Richard James, Esq., and seconded by M. D. Lindo, Esq.,

That the thanks of the meeting are due, and are hereby given, to Capt. James Sprague, for the lucid explanation afforded by him to the meeting this day, and more especially for his general services as agent of the company, in prosecuting the operations of the mine.

44, Finsbury-square, Oct. 23, 1846. J. GROUT, Chairman.

WHEAL MARY MINING COMPANY (Calstock.)—At a Meeting of the adventurers, held at the offices of James Crofts, Esq., secretary, 4, King-street, Cheapside, on Thursday, the 29th inst.,

JOHN HAYS, Esq., in the chair.

The minutes of the preceding meeting were read.—The circular addressed to the adventurers by the purser was also read to the meeting; whereupon, it was moved, seconded, and carried unanimously,

That the letters read from Capt. Tabb, as regards the prospective operation of the mine, be received and approved.

The accounts, up to, and including, October month, showing a balance of 186*l.* 0*s.* 8*d.*, were also read.

Resolved,—That instructions be given to the secretary to take such proceedings as he may be advised, or consider necessary, for the purpose of enforcing the payment of arrears on calls.

Resolved,—That a call of 10*s.* per share be now made, with the view of prosecuting the operations of the mine—5*s.* thereof being payable on or before the 1st December next, and the residue at such time as the directors may deem fit.

JAMES CROFTS, Sec.

PATENT KAMPTULICON (or ELASTIC MATERIAL) COMPANY.—*OFFICES, 18, CORNHILL.—ESTABLISHED* 1843.

An Extraordinary or Special General Meeting of the proprietors of this company was held on Monday, the 26th inst., agreeably with the 12th clause in their rules and regulations, to receive the report of a committee appointed to examine into the present state and prospects of the company, and to amend such rules as they might deem advisable,

WILLIAM G. CLARKSON, Esq., in the chair.

The Secretary (P. G. Greville, Esq.) having read the advertisement calling the meeting, the following RESOLUTIONS were passed unanimously:—

1. That the report and statement of accounts (as audited) for the last half-year be approved and confirmed.

2. That the report of the committee for inquiring into the present state and prospects of the company be approved and confirmed.

3. That a board of directors, consisting of not less than five, or exceeding seven, be now appointed.

4. That the directors be empowered to apply to Parliament for an Act of Incorporation.

A vote of thanks to the chairman, W. G. Clarkson, Esq., for his able conduct in the chair, and a vote of thanks and confidence to Mr. Walter, the managing director, were unanimously carried, and the meeting separated.

P. G. GREVILLE, Secretary.

IMPORTANT TO RAILWAY COMPANIES.

PATENT KAMPTULICON COMPANY, 18, CORNHILL.

This company having completed their new factory, are prepared to supply railway managers and contractors with an elastic material (perfectly non-absorbent) to place between the rails and sleepers, and between the frames and bodies of carriages, to prevent jarring, and, consequently, wear and tear. The elastic planking is strongly recommended to be used for the backs and sides of carriages, to prevent splinters when accidents occur.

By order of the board, P. G. GREVILLE, Secretary.

IMPORTANT TO ENGINEERS, MANUFACTURERS, RAILWAY AND STEAM-BOAT COMPANIES.

Messrs. W. & C. MATHER beg to call the attention of the ABOVE PARTIES to their

IMPROVED ELASTIC METALLIC PISTONS.

The PRINCIPAL FEATURE and ADVANTAGE of THIS IMPROVEMENT is—

1. Its great ELASTICITY and SELF-ADJUSTING PROPERTIES, which enable it to yield to any inaccuracy of the cylinder, whether oval or taper, and to move with the least possible friction.

2. Its extreme SIMPLICITY and LIGHTNESS, consisting of only two pieces of metal, having the vertical and lateral pressure in due and proper proportion, independent of each other.

3. It takes the LEAST possible SPACE, and is well adapted for air and water-pumps, as it allows of a larger water way.

Messrs. W. & C. MATHER feel confident that it is the BEST ELASTIC METALLIC PACKING yet known, for the above reasons.

Models may be seen at the Salford Iron-Works, Manchester; at W. Barker's, engineer, Newton-Moor; and also at J. Mather's, engineer, Beaufort-street, Chelsea, London.

NEWBRIDGE AND TAFF VALE COLLIERY, GLAMORGANSHIRE.—2000 shares, at £10 each.

This valuable colliery is situate in the parish of Llanwonno, in the county of Glamorgan, in the centre of the South Wales Mineral Basin, contiguous to New Bridge, 12 miles from Cardiff; and the Taff Vale Railway, from Cardiff to Merthyr Tydvil, runs through the property—granted, by a lease of 360 acres, for the term of 31 years. The property is surrounded with profitable collieries—one of which (Mr. Coffin's) adjoins this, and supplies the Great Western Railway. Three veins are found to be throughout this property—the Gellon Vein, 3 ft. thick—the Cuamor Vein, 3½ ft. thick—and Coffin's Vein, 4 ft. thick. These veins—proved by the usual computation—will yield an aggregate quantity of *five millions tons*. This, by working 200 tons per day, from one pit only, at a profit of 2*s.* 6*d.* per ton, will yield a clear income of upwards of £7500 per annum; but, as this rate of produce will last considerably more than thrice the period of the lease, the colliery will be worked by more pits, and, consequently, yield a profit of at least £20,000 per annum, at a cost of, say, 6*s.* per ton, and sale 8*s.* 6*d.* per ton; but Mr. Coffin obtains considerably more per ton; and, therefore, it is but fair to suppose the present company will obtain the same; in which case, the profit will be upwards of £30,000 per annum. Even this large sum cannot be supposed to be too highly estimated, when it is recollected that the utmost cost is estimated at 6*s.* per ton, and the sale only at the moderate price of 8*s.* 6*d.* per ton—whereas all coal of the district is sold above the estimate, and that the Taff Vale Railway runs through the property—that the colliery is within 12 miles of the large shipping port of Cardiff—that the coal can be raised from the pit and directly placed on the railway waggons—and that the coal is known to be of superior quality for steam-engines, from the fact of its being used by the Great Western Railway. The colliery will be in full operation in about two years. For the first year the shareholders will receive a dividend of only 5 per cent. out of the first year's produce; but, as in the meantime, the Gellon and Cuamor veins will be reached, and be in gradual increase of produce—the second year's dividends will be large; and, therefore, there is every fair reason to say, this undertaking, not only carries the certainty of large profits, but presents fairer and more legitimate prospects of remuneration to the shareholders, than was ever presented to the public.

COST OF PRODUCTION AND CARRIAGE TO SHIPPING PORT.

Getting or Winning ..... *per ton*	1*s* 7*d*	Wear and Tear	0*s* 3*d*
Underground hauling	0 4	Railway Carriage to Port	1 1½
Dead Work	0 8	Shipping Expenses	0 6
Prop Wood	0 1	Divers extra expenses	0 3
Royalties	1 0	Agency and Incidental Charges	0 2½
Total			6*s* 0*d*

Sale, 8*s.* 6*d.*—Cost, 6*s.* 0*d.*—Profit, 2*s.* 6*d.* per ton.

Application for shares, to be made to Messrs. Roberts, Carter, and Co., mineral surveyors, 21, Portman-street, Portman-square, where the engineer's calculations may be seen in detail (also a plan of the property, and conditions obtained).

Prospectuses, &c., may be had at the office of the *Mining Journal*, 26, Fleet-st., London.

SILVER-LEAD MINES, ABERGWESSIN, BRECKNOCKSHIRE.—1000 shares, of £10 each.

Counting-house on the Mines—Manager and Purser, Messrs. Couch and Pell.

LONDON AGENTS.

Messrs. Roberts, Carter, and Co., 21, Portman-street, Portman-square.

These mines comprise the whole of the Nant-y-Brain and Gwegellhendida Estates, and also half-a-mile of the Trawsnant Estate; the whole comprising a run of nearly two miles on the course of five large lodes or veins, which have been wrought so productively in Lord Cawdor's mines.

The veins on this property are in a beautiful killas, firm, yet sufficiently soft to be good standing and working ground. They are composed of gossans, flookans, prian, pulverized mundics, &c., &c., of the most beautiful description, intersected throughout with prills, strings of lead, and friable ores. The first vein cut through by the adit level is 8 ft. wide, at 2 fms. from surface; the next is upwards of 20 ft. wide, and at the adit level 7 fms. from surface would pay for saving work; two tons of ore having been saved in cutting through the vein. The third vein passed through in the adit level is only about 4 fms. south of the second, and is 25 ft. wide, and studded through with gossans, prian, mundics, and spots of lead.

The leases of the Abergwessin Mines are duly executed for 21 years, at a royalty of one-twelfth, for the first 10 years, and one-tenth for the remainder of the term. In the Nant-y-Moyn part, these veins have been wrought for very many years, and have yielded more than 1,000,000*l.* profit. They are now working by Messrs. Williams and Company, at Scorrier House, Cornwall; and, at the high royalty of one-eighth, are returning great profits. The mineralization of the veins presents the same characteristics in each mine.

In Lord Cawdor's mine, west, the veins are proved to have formed a junction at the base of the mountain; and a precisely similar junction of the veins is proved to exist eastwards, at the base of the mountain in the Abergwessin Mines, where the veins are all laid open at surface; three of these veins have been cut through by an adit level or tunnel, now continuing to cross-cut the other veins. This adit can be carried into the mountain 80 to 100 or more fms. deep, on the course of each vein. These mines have also the great advantage of being conveniently wrought at three several points.

It is intended to make communications from shaft to shaft, by the cross drifts, which will cut the lodes at the 10, 20, and 30 fm. levels under adit; when dividends may be confidently anticipated, as the lodes in this property are richer at the same depth than they were in Nant-y-Moyn.

About a mile from these operations, and in this property, a shaft has been sunk, and one of the lodes cut, under very favourable circumstances.

There is ample water power for drainage and surface operations, slate for roofing, brick and fire clay, and stone for every purpose—also, abundance of [redacted] of the finest quality, for the use of the mines, free of any charge.

Assays of the ores have produced 80 per cent. of pure lead.

Prospectuses and plans can also be had, on application, at the *Mining Journal*, 26, Fleet-street, London.

THE PROJECTED RAILWAYS.

PATENT METALLIC SAND OR ENGLISH POZZOLANO.

—The PROPRIETORS of the METALLIC SAND, after many years' experience of its merits, confidently RECOMMEND it to the attention of Engineers, Architects, Builders, and the public generally, as an invaluable article for HYDRAULIC and OTHER WORKS requiring great strength and durability.

In analysis, the metallic sand is very similar to the Italian Pozzolano—the value of which, in all subaqueous works, is so well known to engineers and architects; but from its granular form, and the sharpness of its angles, and the increased quantity of iron it contains, the metallic sand has been found more durable, and much cheaper than any other similar material at present in use.

From its chemical qualities it forms, in admixture with lime and common sand, a cement, mortar, or concrete, of flinty hardness, and almost entire incompressibility; and from its adhesive and impervious qualities, it completely and for ever excludes water. The more it is exposed to the atmosphere, and to wet and damp, the harder and more durable it becomes. In the formation of mortar and concrete, it has been extensively used in the great tunnels on the London and Birmingham Railway, in the foundations of the New Houses of Parliament, sea walls on the North Devon Railway, Clifton Reservoirs, and other works of importance.

As an external stucco, the metallic sand cement is unaffected by frost or wet; in appearance it resembles the best Portland stone; requires, therefore, neither colour nor paint, and is entirely free from vegetative cracks and blisters, to which Roman cement is liable.

Further information will be given, and specimens shown, on application to Mr. C. K. Dyer, 4, New Broad-street; and at the Metallic Cement Wharf, King's Road (opposite Pratt-street), Camden New Town, London.

ANALYSIS OF THE PATENT METALLIC SAND.

Silica	49	Lime	6
Oxide of Iron	32	Magnesia	2
Alumina	6	Zinc	3
Arsenic and carbonate of copper			2

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PROSPECTUS OF THE BRISTOL AND POOLE HARBOUR RAILWAY COMPANY.

Capital £1,000,000, in 50,000 shares, of £20 each.—Deposit £2 2*s.* per share.

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SOLICITORS.

Gilbert Stephens, Esq., 13, Northumberland-street, Strand.
Messrs. Castleman and Kingdom, Wimborne.

Since issuing the former prospectus, the committee being determined to proceed on the surest grounds, and anxious for the ultimate success of the undertaking, have made further and more minute inquiries into the remunerative traffic to be expected on this line; and they are warranted in stating, that the result of such inquiries has greatly exceeded the expectations upon which they grounded their former prospectus.

This line of railway, commencing at Bristol, will open a direct communication with Poole, passing through or near the important towns and villages of Whitchurch, Pensford, Clutton, Shepton Mallet, Bruton, Castle Cary, Wincanton, Stalbridge, Sturminster Newton, Shillingston, Stourpain, Blandford, Spittisbury, Sturminster Marshall, Wimborne Minster, to Poole Harbour; and thus, by means of the line of packets intended to be established by this company, from that port to the Channel Islands and Cherbourg, and the railways now in progress from the latter place to the French capital, and from thence to Lyons, will complete the line of communication by the most direct way from Edinburgh to the south of France; thus enabling that country to supply herself with many articles of commerce at little more than half the cost she at present pays, and leaving a good remunerative profit to the company and producer at home.

Among the various sources of traffic to be expected on this line, the following are the most prominent:—The supply of the Government with coal from the Welsh and Somersetshire pits, by means of the proposed line, for its different naval and steam depôts throughout the world. The Somerset pits, which are 36 in number, yield at present, about 2000 per diem, but are capable of yielding a much larger quantity; and, supposing that 2000 tons were carried by the railway, at 1*d.* per ton a mile, a distance of 40 miles for 300 days in the year, which is even less than the company have every reason to expect, it would yield a net return of £100,000, or 10 per cent. upon the estimated capital; deduct then 40 per cent. for working the line, wear and tear, and there remains the sum of £60,000, or 6 per cent. per annum on the capital. There can be no doubt of the demand of this important article of general consumption, from the great diminution of price to the consumer by the costs of carriage being reduced to 1*d.* per ton per mile from the present cost, which is from 6*d.* to 10*d.* The supply of the Channel Islands (population more than 100,000), and of France, with the best species of coal for the production of gas, as well as for the use of their manufactures and for domestic purposes. This article, by means of the various coal-pits situated on the line, will yield to the company a very fine remunerative profit, and be of the greatest benefit to the coal proprietor, as the coal necessary for the purposes of gas can be obtained in very large quantities, and delivered at Cherbourg at one-third less than they are now giving for the same coal, and which cannot, therefore, fail to be of equal benefit to the merchant abroad, the producer at home, and the proposed company. Besides these two great sources of coal traffic, there is the supply of the southern coast, and the different districts on the line, with coal for domestic use, at a saving of from 6*s.* to 7*s.* a ton. This is a circumstance that cannot fail to secure to the company the entire traffic, and be of the greatest benefit to themselves and the public in general. In addition to this, the line will afford to the great manufacturing city of Bristol a more ready market for all those articles of commerce of which France and the Channel Islands stand so much in need, and which are manufactured in great quantities at that city; and as soon as the line is completed, tenders will at once be submitted to Government for the more speedy transmission of the mails to the Channel Islands, by which a saving of more than 12 hours will be effected, and to the north and north-west of Great Britain a saving of 24 hours.

There is also very considerable traffic to be derived from the various stone quarries, iron mines, and clay pits, on the line (the clay pits yielding alone more than 50,000 tons annually); and from the Isle of Wight, for the manufacture of glass, of which more than 10,000 tons annually are used in Birmingham alone; the present mercantile traffic which now goes round the Land's-end to the western ports, the great agricultural, manufacture, and passenger traffic from the rich and populous districts through which the line passes; and the traffic which must be thrown upon the line from the Welsh iron and coal masters, as being the nearest and most direct outlet to the continent for the produce of the country. Independent of remuneration, this line ought to be looked upon as a great national undertaking and benefit—as it will do away with the necessity for vessels now employed in the Dutch, Danish, Swedish, and Russian trades, bound to the western parts of England, going round the Land's-end, by at once opening to them the harbour at Poole, which has been pronounced by eminent engineers to be one of the best natural harbours in the world, and capable, at a small expense, of being made accessible to vessels of the largest class with perfect safety, and enabling them to send their cargoes to their different destinations in less time, and at less expense, than at present; by this means, not only will the shipowner and the merchant be greatly benefitted, but the company will derive an immense annual revenue from the cargoes of northern produce thus landed at Poole, to be again distributed, by means of their railway, to the different manufacturing towns throughout this country; and the passenger traffic that would naturally follow so large a portion of mercantile traffic cannot fail to yield to the company a very handsome return upon their outlay.

The average number of vessels detained in this trade in going round the Land's-end amounts, from the most authentic sources, to about 4000, each vessel averaging a detention of five days. The average tonnage of these vessels amounts to 130 tons, which would give six men to each vessel, working after the rate of £60 per month, which would give, for the number of days detained, £10 to each vessel: this, multiplied by the number of vessels—viz. 4000—would give the sum of £40,000, which will be entirely saved by means of this line. This is independent of the loss of life, destruction of property, expense of insurance, and loss of time, which would all be saved by the projected rail—the statistics of which, did space allow, would make every one look upon the present undertaking, not only as one of great local importance, but one of great national benefit.

The advantages have long been known and appreciated, and the present company have determined to bring them into play in the most full and efficient manner. The expense of storage at Poole, as well as the port dues, are less than at any port in the kingdom; so that the merchant would be enabled to keep his goods there at a less expense than at his own port. He would be enabled to perform five voyages for every three from the northern parts; and, by means of the speedy communication by the electric telegraph, and the rapid travelling of the present day, many advantages and conveniences will be afforded.

A careful preliminary survey having been made by the company's surveyor, the line has been pronounced to present less than the average engineering difficulties, about 30 miles being through a rich, populous, and level valley. The harbour of Pool has also been surveyed, and the bar at the mouth of the harbour has been pronounced to be capable of removal, and is now actually being removed; thus opening to vessels of the largest tonnage one of the safest and most commodious harbours in the world.

These are a few of the advantages offered to the public by the projected line; and the committee, impressed with the sense of the excellence and legitimacy of the undertaking, and basing their views upon ascertained facts and undoubted evidence, feel themselves warranted in offering to all applicants for shares the following conditions—viz.: That no party taking shares in the said company shall be liable (in case of failure of the company) to a larger amount than 5*s.* per share, unless a greater sum shall be sanctioned at a general meeting of the shareholders called for that purpose: so that, in case the company fail at any period of time prior to such meeting being called, the committee pledge themselves to return £1 17*s.* per share instead of £2 2*s.*, and a proportionately larger amount if the accounts of the company, upon inspection, show a less expenditure.

At the first general meeting of the shareholders the committee will produce an account, signed by the bankers, of the several sums received by them on account of the company—thereby warranting to the shareholders, that the amount subscribed is still in the hands of the bankers, minus the 5*s.* per share.

The future plans of the company will be laid before the shareholders at their first general meeting, and everything submitted to their investigation and approval.

To the Provisional Committee of the Bristol and Poole Harbour Railway Company.

I request you will allot me shares of £20 each, in the above undertaking, agreeably to the prospectus; and I agree to accept such shares as may be allotted me on the terms above mentioned, and also to pay the deposit thereon, and to sign the Parliamentary contract and subscribers' agreement, when required.—Dated the day of 1846.

Name .....
Residence .....
Trade or profession .....
Reference .....
Address for letters .....

*** Applications for shares may be made, in the above form, at the offices of the company, 55, King William-street, City; Gilbert Stephens, Esq., 13, Northumberland-street, Strand; Messrs. Castleman and Kingdom, solicitors, Wimborne; T. Hyatt, Esq., solicitor, Shepton Mallet; S. Smith, Esq., Blandford; M. K. Welch, Esq., solicitor, Poole; R. Bate, Esq., Bridgewater; Messrs. Drew and Charlton, sharebrokers, Manchester; Messrs. J. Smith and Co., stockbrokers, Edinburgh; Messrs. Stanley and Wasborough, solicitors, Bristol; Messrs. Bradley and Barnard, stockbrokers, Bristol; Messrs. Hill and Williams, solicitors, Farrington Gurney; J. McGeorge, Esq., 110, St. Vincent-street, Glasgow; Messrs. Lane and Perry, stockbrokers, Birmingham; Messrs. Thompson and Co., stockbrokers, Derby; and Messrs. Jones and Co., Dame-street, Dublin.

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